STEREO CASSETTE RECEIVER

KRC-310

SERVICE MANUAL

KENWOOD

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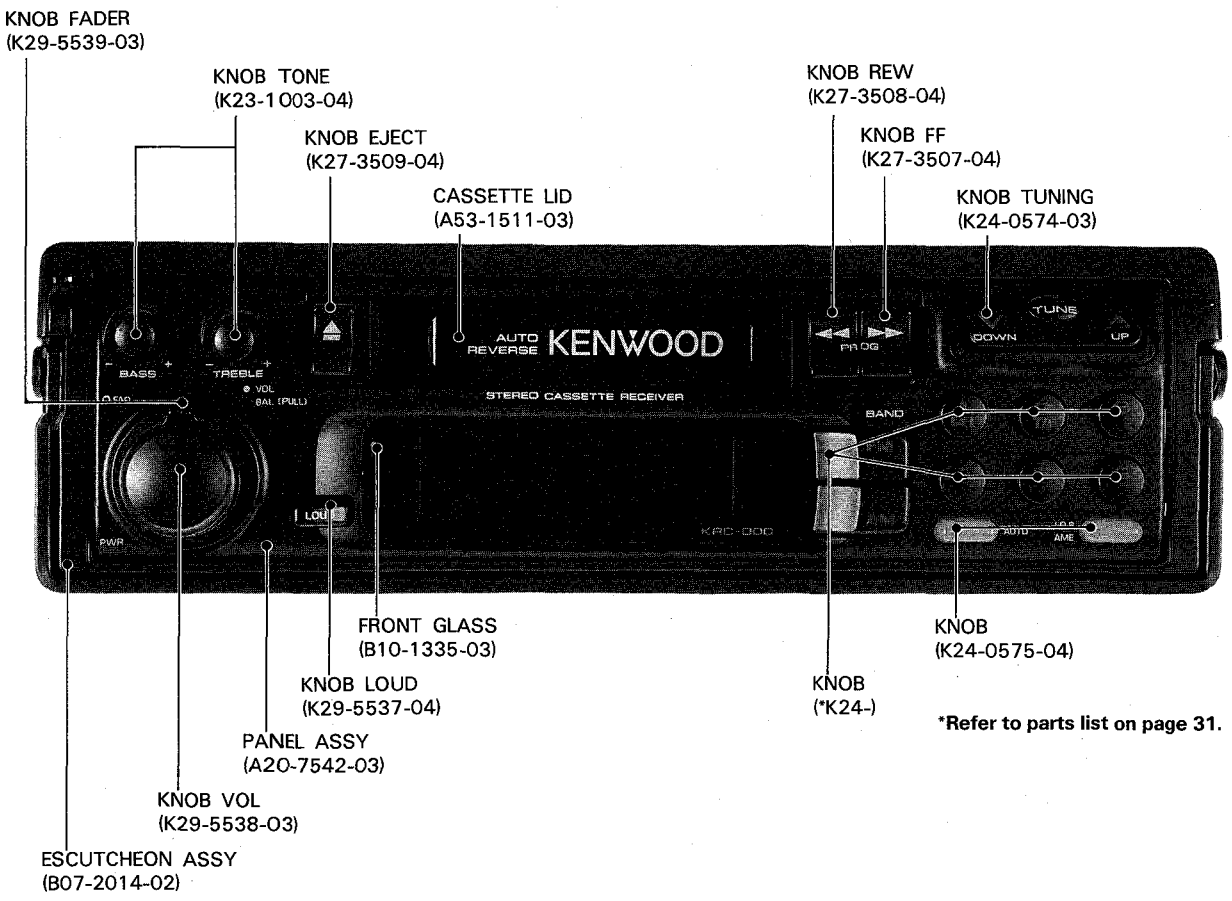
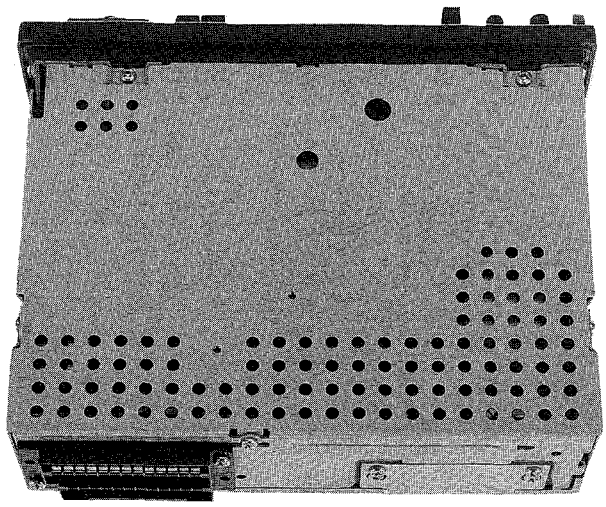


*Refer to parts list on page 31.

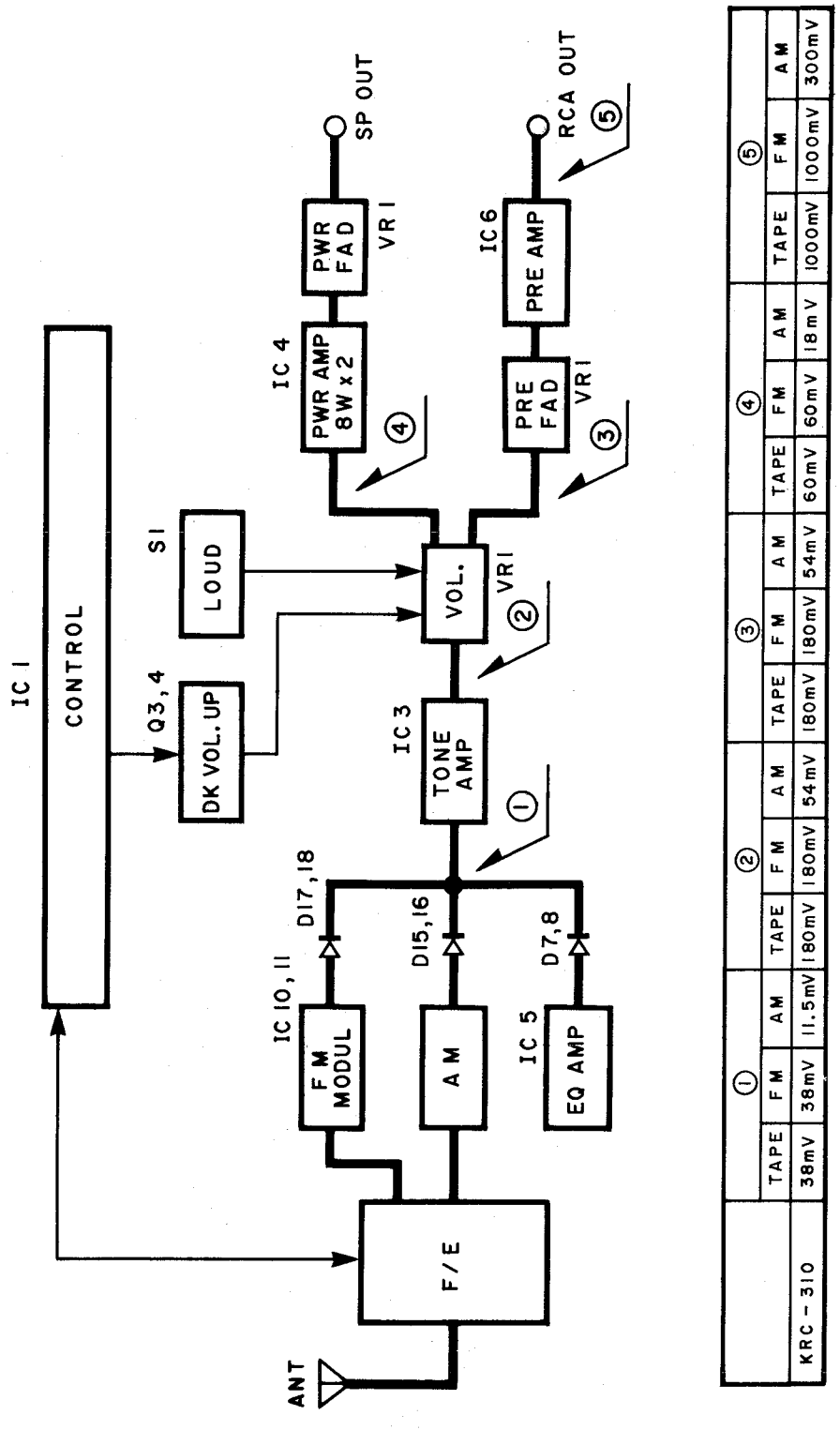


KRC-310

CONTENTS

BLOCK LEVEL DIAGRAM 2
CIRCUIT DESCRIPTION 3
MECHANISM DESCRIPTION 9
ADJUSTMENT 17
REGLAGE 18
ABGLEICH 19
PC BOARD (Component Side View) 21
PC BOARD (Foil Side View) 23
SCHEMATIC DIAGRAM 25
EXPLODED VIEW (MECHANISM) 29
EXPLODED VIEW (UNIT) 30
PARTS LIST 31
SPECIFICATIONS ..... Back cover

BLOCK LEVEL DIAGRAM



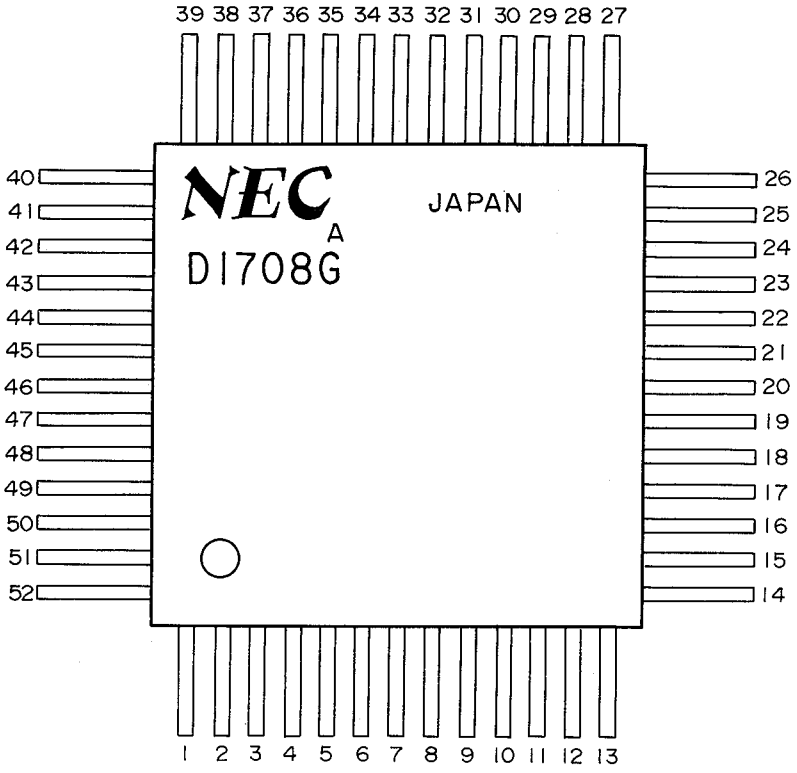
CIRCUIT DESCRIPTION

Ref. No.	Components	Use/Function	Operation/Condition/Compatibility
IC1	75108G-604-1B	Microprocessor	Key input acceptance. PLL, display and mechanism control. Others including control signal generation, each status input acceptance.
IC2	BA3900-V1	System Power IC	Regurated power supply (COM9V, FM9V, AM9V, 5.6V). MUTE is output in standard mode.
IC3	BT3S540	Tone amp	BASS, TREBLE
IC4	AN7178	Power amp	5.7W×2 ch
IC5	TA8162SN	EQ amp	
IC6	NJM4565D	PRE amp	Rear Buff Amp
IC7	AN6262N	T. ADV	Between-tunes detection
IC8	TDA1579	SDK	BK/DK signal demodulation and detection
IC9	NJM4565D	Input Buff, BPF	
IC10	LA1140-K	FM IF amp, DET	
IC11	AN7465K	Noise canceller/MPX	
Q1,2	2SD1468S	MUTE	
Q3, 4	2SD1468S	DK Vol. Boost SW	
Q5	DTC124EK	LOCAL SW Inhibition	During TAPE mode and SDK mode
Q6	DTC124EK	Vol. Boost SW Driver	
Q7	DTC124EK	TAPE mode SW	
Q8 Q9	DTA124EK DTC124EK	MUTE Driver SW	
Q10	DTA124EK	EQ MUTE Driver	
Q11	DTC124EK	TAPE +B SW	L-Type only
Q12	2SA1037K	MUTE Driver	
Q13, 14	2SC2412K	EQ MUTE	
Q15	2SB1307M	LAMP +B SW	During T-ADV mode
Q16	2SC2412K	LOCAL SW	
Q17 Q18	DTC124EK DTA124EK	MW/LW SW	MW:ON
Q19	DTA144EK	AGC CUT Driver	SEEK: ON
Q20	DTC124EK	Q19 SW	
Q21	2SC1740S	AM SD SW	
Q22	2SC1740S	FM SD SW	
Q23, 24	DTC114TS	TUNER MUTING	During TAPE mode ON
Q25	DTC124EK	SK MUTE	
Q26	DTC124ES	FM/AM SD SW	
Q27~30	2SC1740S	Key matrix Buff	ST, SD, SK, DK
Q31	DTC124EK	LPF GAIN control	
Q32	DTA144EK	T-ADV SW	
Q33, 34	2SC2412K	FM/MW LPF	
Q35	DTC124EK	LW LPF SW	
Q36, 37	2SC2412K	LW LPF	
Q38, 39		FM/MW LPF SW	
Q40	2SC2058S	IF Amp	
Q41	2SC1740S	FM SD Driver	
Q42	2SC1740S	ANRC Buff	
Q43	2SC1740S	ST Noise control	
Q44	DTC124ES	AFC control	
Q50	2SC2412K	AM LOCAL SW	
Q51	DTA144EK	Q50 Driver	

CIRCUIT DESCRIPTION

IC1: Microprocessor 1708AG-871-00

Pin Description



Pin No.	Pin Name	Pin No.	Pin Name
1	LCD4	52	LCD5
2	LCD3	51	LCD6
3	LCD2	50	LCD7
4	LCD1	49	LCD8
5	COM2	48	LCD9
6	COM1	47	LCD10
7	V_{DD}	46	LCD11
8	FM	45	LCD12
9	AM	44	LCD13
10	GND	43	LCD14
11	EO_1	42	LCD15
12	EO_2	41	LCD16
13	CE	40	LCD17
14	NC	39	LCD18
15	XI	38	LCD19
16	XO	37	LCD20
17	(PA_3) TAPE, $\overline{RADIO/LW}$	36	LCD21
18	(PA_2) $\overline{FWD/REV}$	35	LCD22
19	(PA_1) $\overline{TAPE\ IN}$	34	LCD23
20	(PA_0) KS3	33	※V_{DD}
21	K_3	32	(PC_0) $\overline{MUTE}$
22	K_2	31	(PC_1) $\overline{T\text{-}ADV}$
23	K_1	30	(PC_2) DK OUT/AGC
24	K_0	29	(PC_3) LOCAL/MTL
25	(PB_3)FM/$\overline{AM}$	28	(PB_0) KS0
26	(PB_2) KS2	27	(PB_1) KS1

(NC: No Connection)

CIRCUIT DESCRIPTION

Pin Description

Pin No.	Symbol	Pin Name	Description
1~4 ~ 34~52	LCD1 ~ LCD23	LCD segment signal	LCD segment signal output pin (1/2 duty, 1/2 bias LCD should be used. Frame frequency: 100 Hz, Drive voltage: VDD)
5 6	COM2 COM1	LCD common signal	LCD common signal output pin
7 33	V_{DD}	Power input	Device power supply pins During device operation, 5 V±10% voltage is supplied via these pins. Either of them can be used for supplying the power individually. The rising time of VDD should be less than 500 ms (0 to 4.5 V). When the rising time is too long, or when the VDD is not lowered completely to 0 V and then raised to 4.5 V from the voltage lower than the operating rate, the diode switch condition for initialization is not read out correctly. In such cases, use the CE pin so that the diode switch status can be read out for initialization.
8	FM	FM VCO input	This pin inputs the FM station output signal. Since it incorporates the AC amp, cut the DC signal with the capacitor.
9	AM	AM VCO input	This pin inputs the AM station output signal. Since it incorporates the AC amp, cut the DC signal with the capacitor.
10	GND	Ground	Connect to the ground terminal of the set.
11 12	EO_1 EO_2	Error Out	Charge pump output of the phase detector consisting of PLL. When the frequency divided by the oscillating frequency is higher than the reference frequency, these pins output high level signals, and when it is lower than the reference frequency, they go low. When the frequency (divided by the oscillating frequency) is coincided with the reference frequency, it enters into the floating status.
13	CE	Chip Enable	This pin is used to input the selected signal from the device. When operating the PLL section, this pin goes high, and when the PLL section is stopped, it goes low. When at low level, the display goes off. However, a low level signal below 134 µs or high level signal is not accepted.
15 16	XI XO	Crystal resonator	Connectors of the crystal resonator. Connect the 4.5 MHz crystal resonator.
17	TAPE, $\overline{\text{RADIO}}$ /$\overline{\text{LW}}$ (BAND B)	TAPE switching output LW switching output (PA3)	TAPE: H, RADIO: L FM, MW: H, LW: L (L type only)
18	FOW/$\overline{\text{REV}}$	Direction input (PA2)	FOW: H, REV: L
19	$\overline{\text{TAPE IN}}$	TAPE MODE input (PA1)	TAPE: L, RADIO: H
20	KS3 (BAND A)	Key return signal source (PA0)	This pin outputs the key return signal for key matrix.
25	FM/$\overline{\text{AM}}$	FM switching output (PB3)	FM: H, MW, LW: L
29	LOCAL/MTL	MODE control output	RADIO LOCAL ON: L, OFF: H TAPE METAL ON: H, OFF: L
21 ~ 24	K_3 ~ K_0	Key return signal input	This pin inputs the key return signal for the key matrix. Insert the pull-down resistor. (CMOS input)
26 ~ 28	KS_2 ~ KS_0	Key return signal source	This pin outputs the key return signal for the key matrix. Since the synchronous current is greatly lowered because of its configuration, the reverse-current prevention diode will be not necessary for the key source side. (CMOS output)
30	DK OUT/AGC	DK OUT signal output	DK: H, Others: L
31	T-ADV	T-ADV signal output	
32	$\overline{\text{MUTE}}$	MUTE out	This pin outputs the muting signal to eliminate shock noise when the PLL is unlocked and pop noise when switching between Tape and Radio, and is active low. (CMOS output) For timing details, refer to the AF Mute Out Timing Chart. When the CE pin is low, this pin is active low.

CIRCUIT DESCRIPTION

Key Matrix

	K0 (24)	K1 (23)	K2 (22)	K3 (21)
KS2 (26)	AUTO	※3 CLK ※3 LOCAL/AME	DOWN	UP
KS1 (27)	1/MTL	※4 2/T-ADV	3	4
KS0 (28)	5	6	※1 SDK ※2 AM	※1 BAND ※2 FM
KS3 (20)	ST	SD	SK	DK

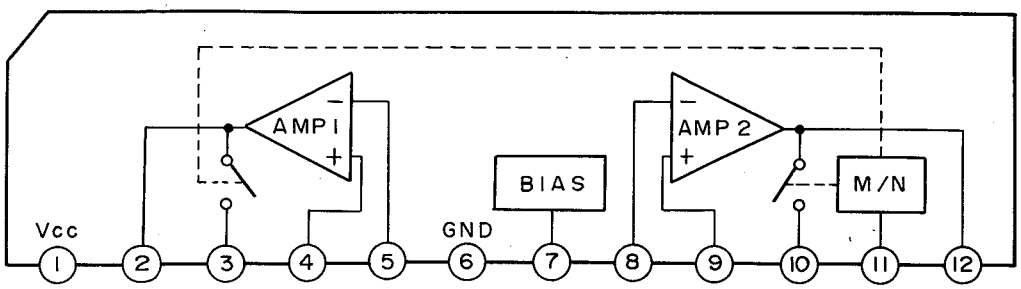
Initial Setting These switches are used to set the area (version of the model).
By combination of 4 resistors, the model can be specified for each area.

BAND A (20)	BAND B (17)	USE
L	L	USA1 (CLOCK)
H	L	USA2 ※3
L	H	D-Type ※1
H	H	L-Type
R38: H R37: L	R41: H R40: L	

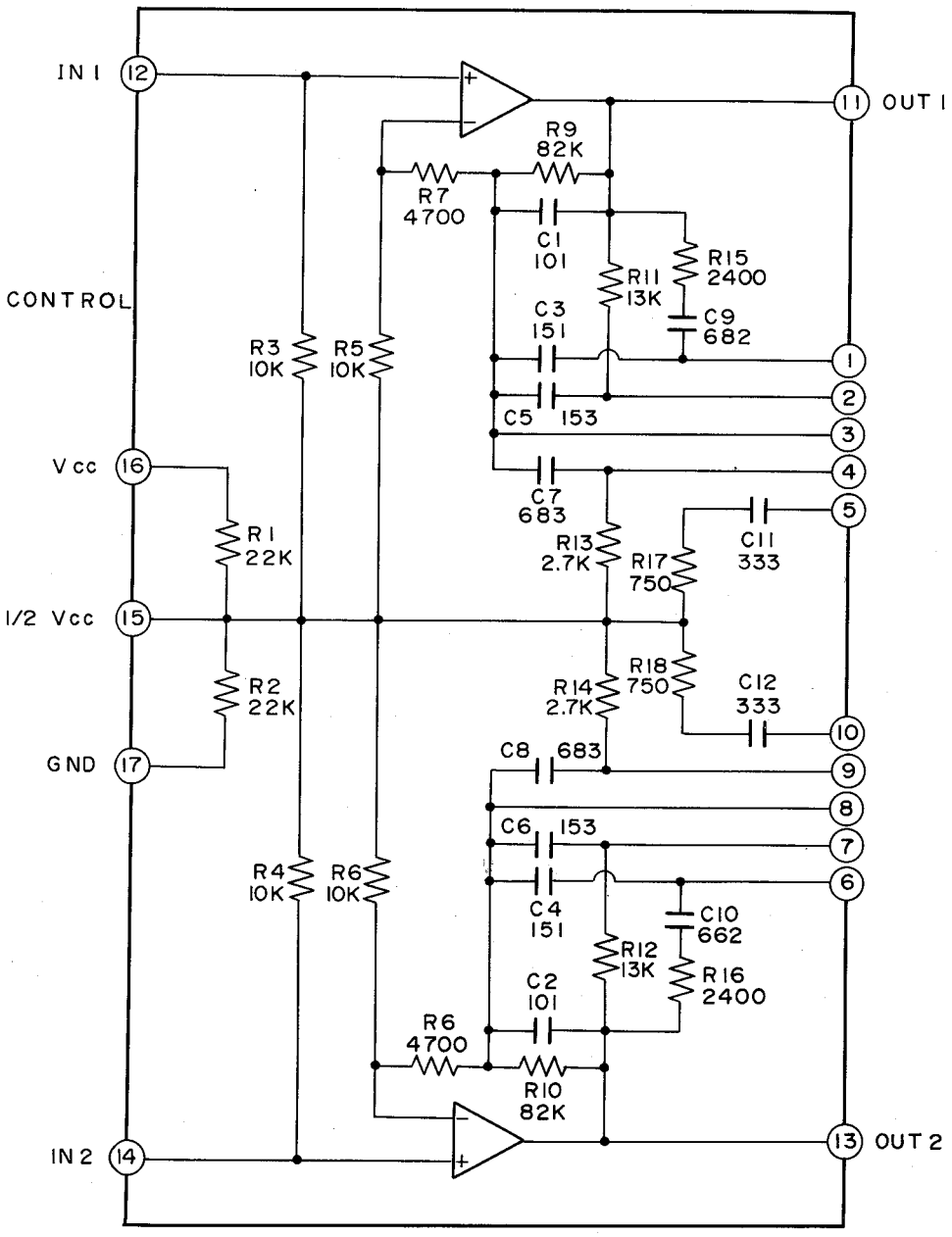
※1: D type
※2: Without D type
※3: USA2 (Without CLOCK mode)

CIRCUIT DESCRIPTION

IC5: TAPE EQ AMP TA8162SN

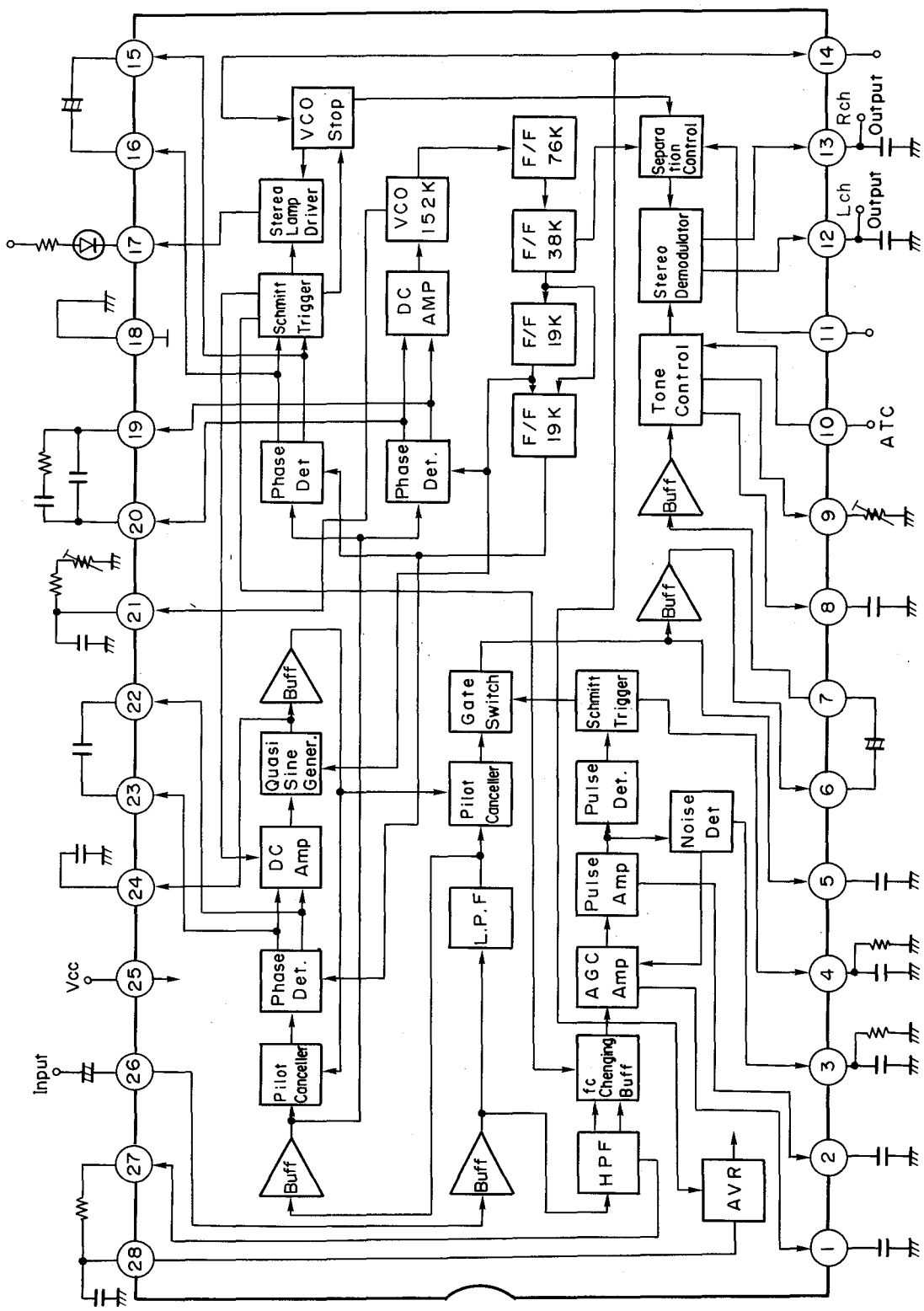


IC3: TONE control BT3S540

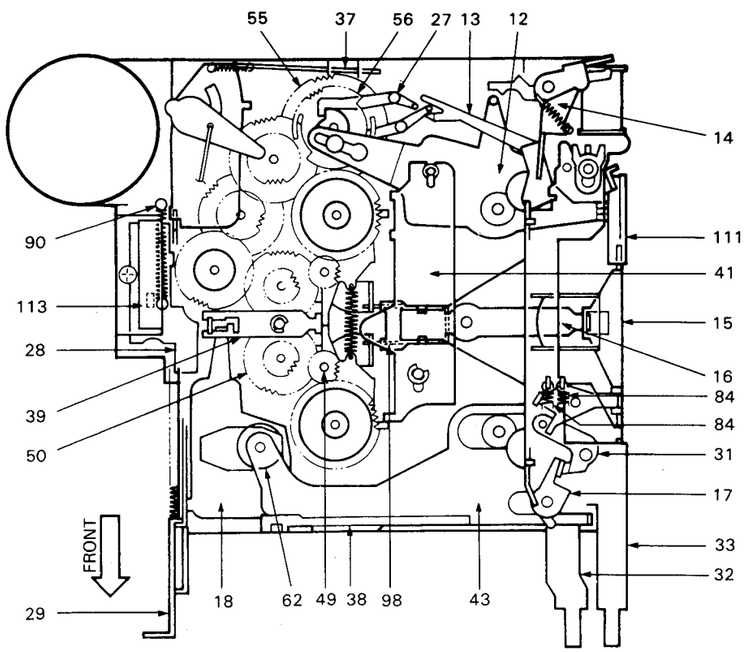


CIRCUIT DESCRIPTION

IC4: FM Noise canceller/MPX AN7465K



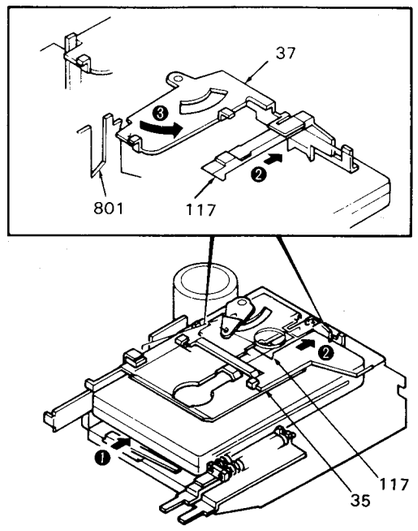
MECHANISM DESCRIPTION



STOP mode

Loading

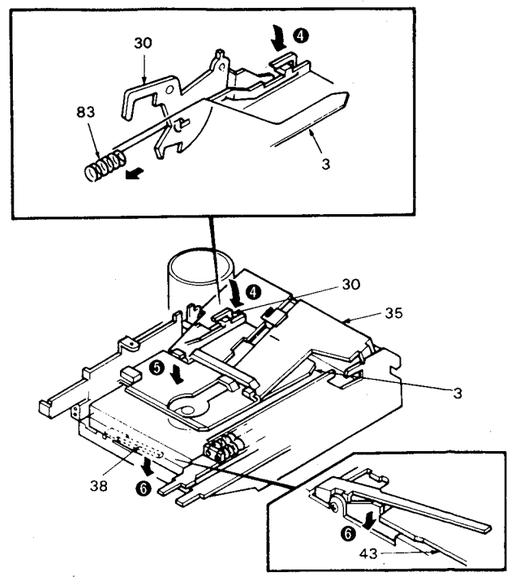
1. Insert a cassette tape (❶).
2. The pack slider (117) pushes the CD plate (37) (❷).
3. The CD plate (37) rotates to unlock the container arm (35) (❸).



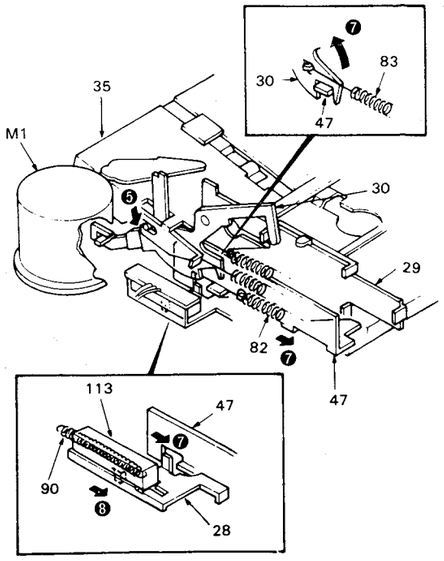
KRC-310

MECHANISM DESCRIPTION

4. The lift-up lever (30) is pulled by the spring (83) and rotates; this lowers the container arm (35) (❹).
5. When the container arm (35) is lowered, the holder (3) is also lowered (❺).
6. When the holder (3) is lowered, the cassette tape pushes the timing plate (38).
   The timing plate (38) releases the head plate (43) lock (❻).

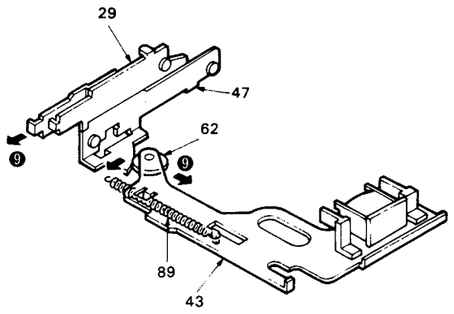


7. When the lift-up lever (30) rotates, the head push plate (47) is unlocked. The head push plate (47) is pulled by the spring (82) and shifted forward (❼).
8. When the head push plate (47) moves forward, the switch plate (28) moves forward and turns the switch (113) ON.
   When the switch is turned ON, the motor (M1) is energized (❽).

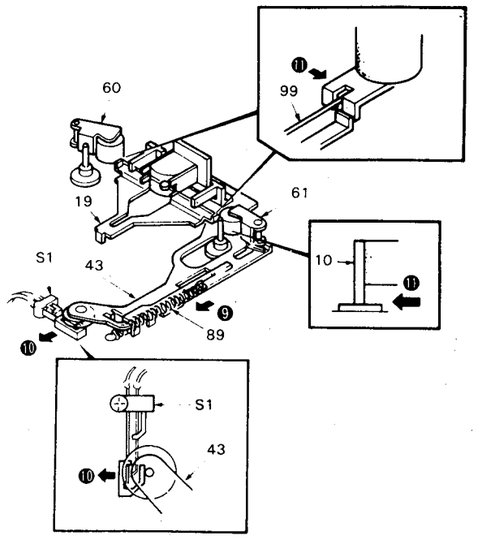


MECHANISM DESCRIPTION

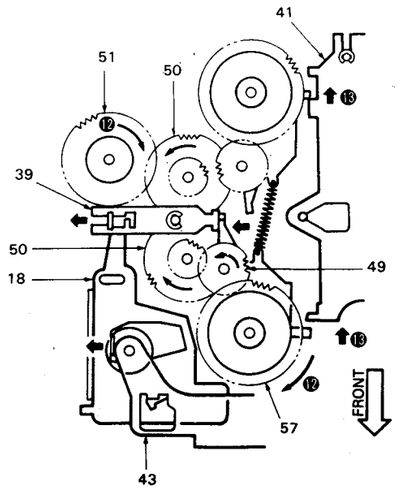
9. When the head plate (43) is moved forward by the spring (89) (❾).



10. The head plate (43) moves forward and opens the mute switch (S1) (❿).
11. The head plate (43) moves forward and pressure is applied to the pinch roller (60) or (61) via the spring (99) (⓫).



12. The rotation of the take-up reel base (57) is transmitted by the gears (51 → 50 → 49) (⓬).
13. The supply reel base is separated from the gear by means of the main plate (41) (⓭).

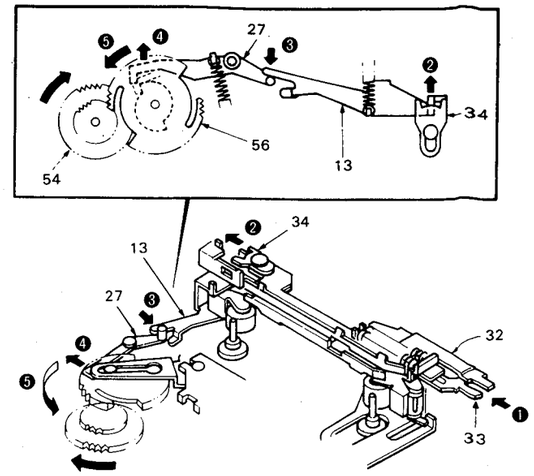


KRC-310

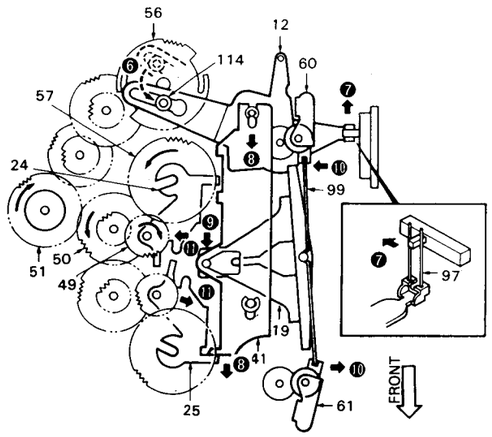
MECHANISM DESCRIPTION

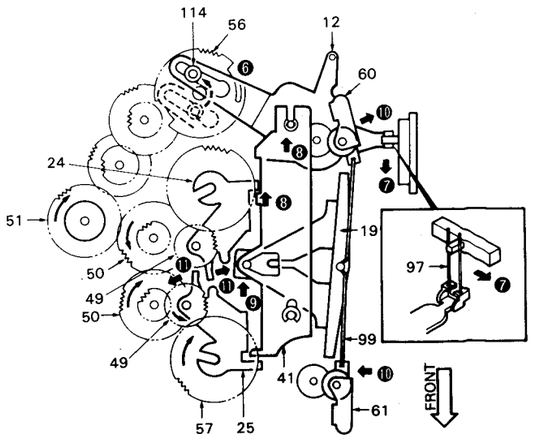
Program

1. Press the REW lever (32) and the FF lever (33) simultaneously (with your fingertips) (❶).
2. The PC (program change) plate (34) is held between the REW lever (32) and the FF lever (33), and pushes the TS (trigger stop) arm (13) (❷).
3. The TS arm (13) moves the trigger arm (27) (❸).
4. The trigger arm (27) releases the reverse gear (56) lock (❹).
5. The reverse gear (56) is engaged to the DT gear (54) by the spring (99) and rotates half-way (180°) (❺).



6. The reverse gear (56) moves the change plate (12) from the FOW to the REW positions by the movement of the boss and collar (114) (❻).
7. The change plate (12) changes the head switch through the HS spring (97) (❼).
8. The change plate (12) moves the main plate (41) (❽).
9. The main plate (41) moves the pinch roller operating plate (19) (❾).
10. The pinch roller operating plate (19) switches the pinch rollers (60, 61) (❿).
11. The main plate (41) switches the reel base gear assemblies (24, 25). The rotation is trasmitted by the gears (51 → 50 → 49 → 57) (⓫).

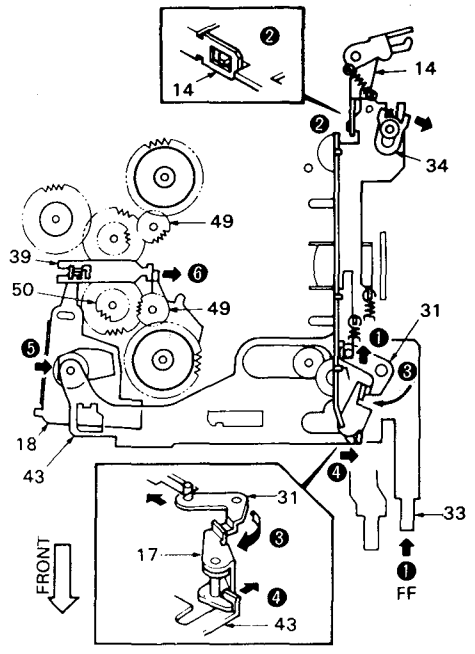




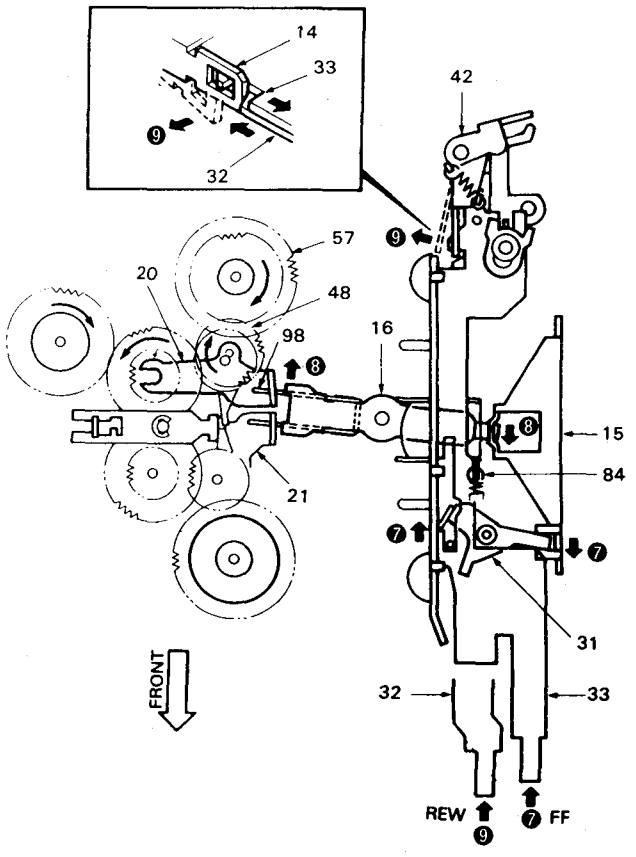
MECHANISM DESCRIPTION

FF (Fast-Forward)

1. Press the FF lever (33) (with your fingertip) (❶).
2. The FF lever (33) does not press on the PC plate (34) (when the REW lever (32) is not pressed simultaneously), but is locked by the FR lock plate (14) (❷).
3. The FF lever (33) moves the pull plate (17) via the FR bracket (31) lever (❸).
4. The pull plate (17) moves the head plate (43) slightly backward (❹).
5. The head plate (43) pushes on the TG push plate (39) via the TG operating plate (18) (❺).
6. The TG push plate (39) pushes the reel base gear assemblies (24, 25) to separate the take-up torque (❻).



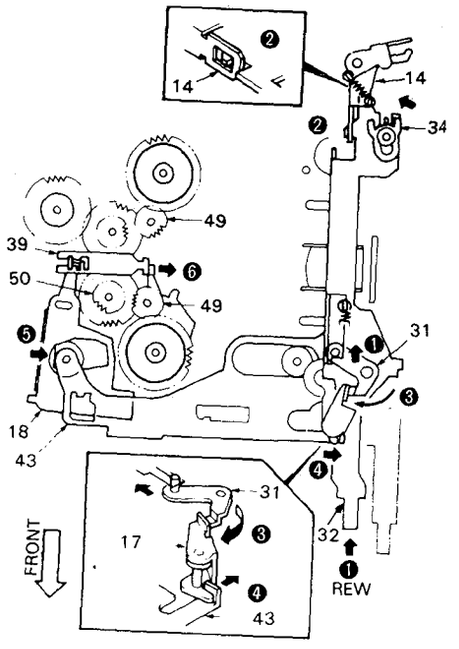
7. The FR bracket (31) lever pushes the FR slide lever (15) (❼).
8. The FR slide lever (15) transmits the FF torque to the reel base (57) by moving the FG plate (20), via the FR operating plate (16) and spring (98) (❽).
9. To release the FF operation, press the REW lever (32) lightly. The FR lock plate (14) moves, and the FF lever (33) is released by the force of the spring (84) (❾).



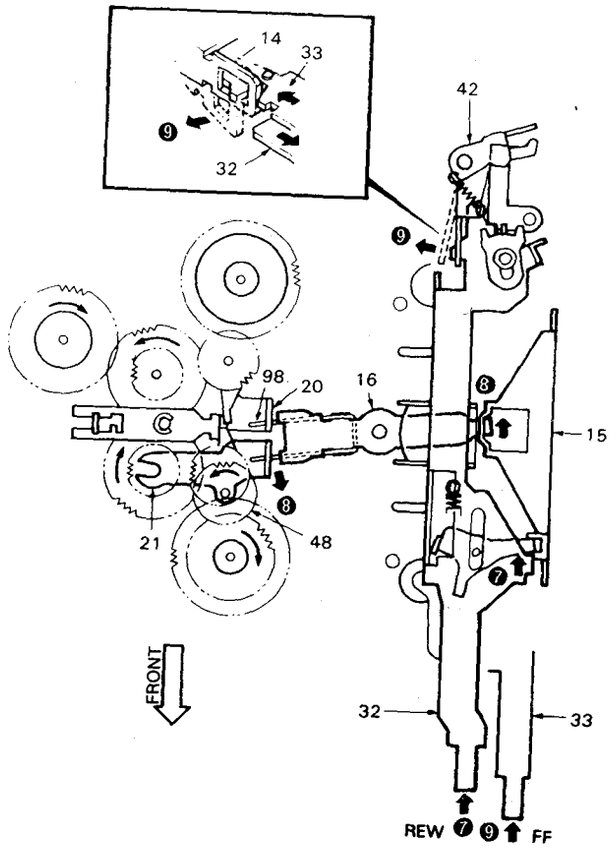
MECHANISM DESCRIPTION

Rewind

1. Press the REW lever (32) (with your fingertip) (❶).
2. The REW lever (32) does not press on the PC plate (34) (when the FF lever (33) is not pressed simultaneously), but is locked by the FR lock plate (14) (❷).
3. The REW lever (32) moves the pull plate (17) via the FR bracket (31) lever (❸).
4. The pull plate (17) moves the head plate (43) slightly backward (❹).
5. The head plate (43) pushes on the TG push plate (39) via the TG operating plate (18) (❺).
6. The TG push plate (39) pushes the reel base gear assemblies (24, 25) to separate the take-up torque (❻).



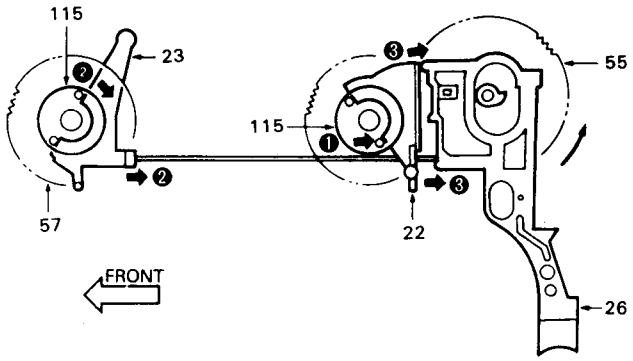
7. The FR bracket (31) lever pushes the FR slide lever (15) (❼).
8. The FR slide lever (15) transmits the REW torque to the reel base (57) by moving the RG plate (21), via the FR operating plate (16) and spring (98) (❽).
9. To release the REW operation, press the FF lever (33) lightly. The FR lock plate (14) moves, and the REW lever (32) is released by the force of the spring (84) (❾).



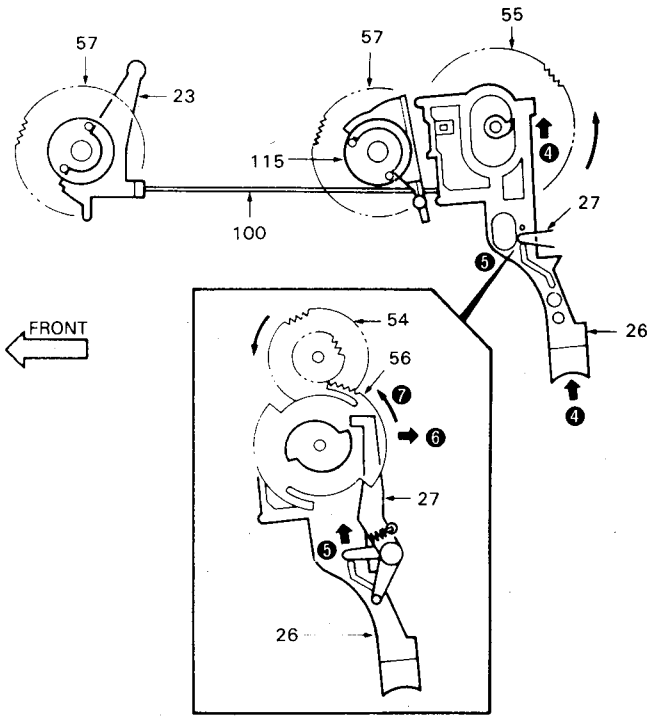
MECHANISM DESCRIPTION

Auto-Reverse Operation

1. When the supply R reel base (57) stops rotating at the end of a tape in the forward mode, the R.ED plate (23) is released from the ED piece (115) located under the reel base (❶).
2. At the F. reel base (54), the F.ED plate (22) is also released from the ED piece (115) (❷).
3. These supply ED plate release the end sensor plate (26) (❸).

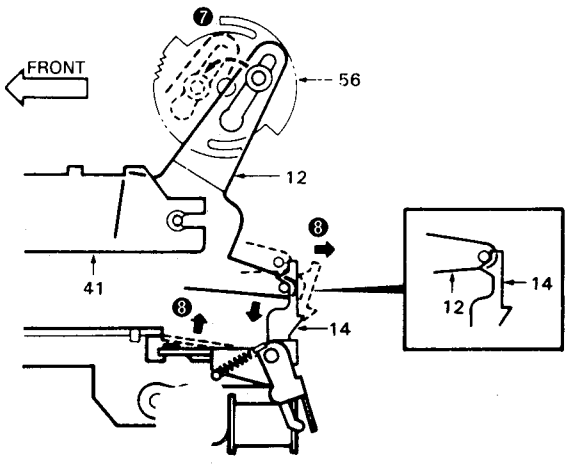


4. The end sensor plate (26) advances on the TS operating gear (55) cam (❹).
5. When the end sensor plate (26) advances, its boss section moves the trigger arm (27) (❺).
6. The trigger arm (27) releases the reverse gear (56) lock (❻).



7. The reverse gear (56) performs the programmed operation after rotating half-way 180° (❼).
8. When the end of tape is reached in FF or REW operation, the end sensor is activated to shift the lever from (12)→(41)→(14)→(15), and the FF/REW lever is released (❽).

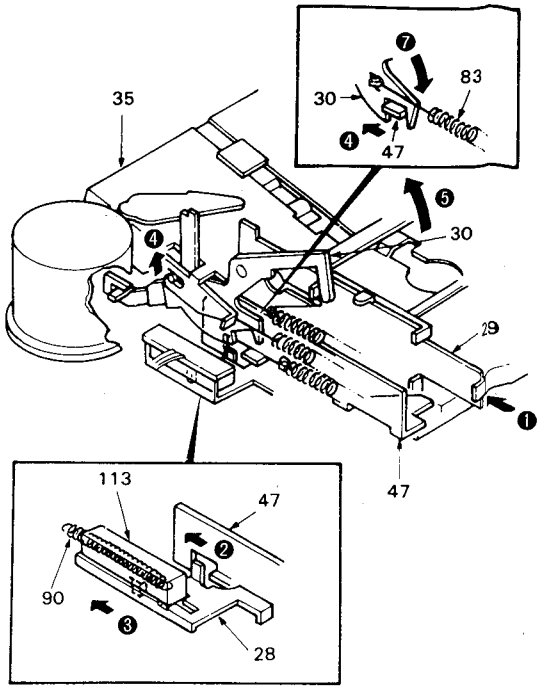
* The rotation of the reel base (57) resets the end sensor plate (26). The TS operating gear (55) cam pushes on the end sensor plate (26) to set it. When the reel base (54) stops, the TS operating gear (55) cam rotates half-way 180° and the end sensor plate (26) begins operating.

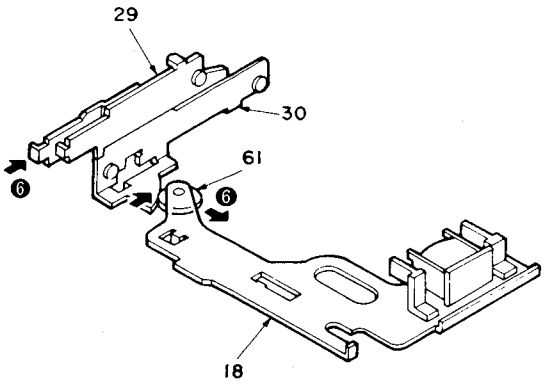


MECHANISM DESCRIPTION

Eject

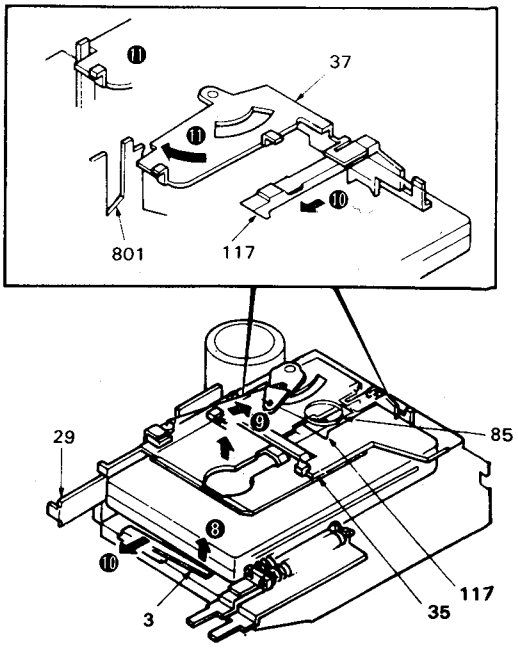
1. Press the eject lever (29) (with your fingertip). The head push plate (47) also moves (❶).
2. The head push plate (47) moves the switch plate (28) through the spring (90) (❷).
3. The switch plate (28) turns the switch (113) OFF (❸).
4. The head push plate (47) pushes the lift-up lever (30) upward (❹).
5. The lift-up lever (30) pushes up the container arm (35) (❺).





6. When the eject lever (29) is pressed, the head push plate (47) moves the head plate (43) backward by the roller (62) (❻).
7. The lift-up lever (30) locks the head push plate (47) (❼).

8. When the container arm (35) lifts up, the timing plate (38) locks the head plate (43) (❽).
9. The eject lever (29) set the reverse spring (85) to the eject operation position (❾).
10. When the container arm (35) lifts up, the reverse spring (85) pushes on the pack slider (117) to eject the tape (❿).
11. When the pack slider (117) moves forward, the CD plate (37) locks the container arm (35) (⓫).



ADJUSTMENT

Set the controls and switches as follows.
BALANCE :center position
FADER :center position
BASS :center position
TREBLE :center position

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER(RECEIVER) SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION							
1	DISCRIMINATOR	(A) 98.1MHz 0 dev 60dBμ(ANT input)	Connect the DC voltmeter between pins of TP1.(X14)	FM 98.1MHz	L3 (X14)	0V	(a)
2	SEPARATION	(C) 98.1MHz 1kHz,±67.5kHz dev Pilot:±7.5kHz dev Selector:L or R 60dBμ(ANT input)	(B)	FM 98.1MHz	VR7 (X14)	Adjust it so that the crosstalk from L to R and R to L become minimum.	
3	ANRC	(C) 98.1MHz 1kHz,±67.5kHz dev Pilot:±7.5kHz dev Selector:L or R 35dBμ(ANT input)	(B)	FM 98.1MHz Connect a leadwire between TP5 and GND.	VR9 (X14)	Separation 10dB	(b)
4	SEEK STOP LEVEL	(A) 98.1MHz 1kHz,±75kHz dev 20dBμ(ANT input)	—	FM SEEK:ON 98.1MHz	VR8 (X14)	STOP	
5	VCO	(A) 98.1MHz 1kHz,±75kHz dev 60dBμ(ANT input)	Connect a frequency counter to TP2 and GND (upper)	FM 98.1MHz Connect a R(180KΩ) between TP2(lower) and GND.	VR6 (X14)	19,000Hz	(c)
AM SECTION							
(1)	STOP LEVEL	(D) 990kHz 400Hz,30% mod 35dBμ(ANT input)	—	AM 990kHz	VR4 (X14)	STOP	
CASSETTE DECK SECTION							
[1]	AZIMUTH	MTT-114 10kHz	(B)	TAPE PLAY	Head Azimuth Screw	Adjust the azimuth for each L CH/R CH or FWD/RVS becomes maximum.	(e)

KRC-310(E)

REGLAGE

Régler les controles et les boutons comme suit.
BALANCE :position centre
FADER :position centre
BASS :position centre
TREBLE :position centre

N°	ITEM	REGLAGE DE L'ENTREE	REGLAGE DE LA SORTIE	REGLAGE DU TUNER (AMPLI TUNER)	POINTS DE L'ALIGNEMENT	ALIGNER POUR	FIG.
SECTION MF							
1	DISCRIMINATEUR	(A) 98.1MHz 0 dév 60dBμ(Entrée ANT)	Raccorder le voltmètre CC entre les deux broches de TP1.(X14)	FM 98.1MHz	L3 (X14)	0V	(a)
2	SEPARATION	(C) 98.1MHz 1kHz,±67.5kHz dév Pilote:±7.5kHz dév Selecteur:L ou R 60dBμ(Entrée ANT)	(B)	FM 98.1MHz	VR7 (X14)	Le régler de manière à ce que la diaphonie de L à R et de R à L devienne minimum.	
3	ANRC	(C) 98.1kHz 1kHz,±67.5kHz dév Pilote:±7.5kHz dév Selecteur:L ou R 35dBμ(Entrée ANT)	(B)	FM 98.1MHz Raccorder un câble entre les TP5 et GND.	VR9 (X14)	Séparation 10dB	(b)
4	NIVEAU DE CHERCHER D'ARRET	(A) 98.1MHz 1kHz,±75kHz dév 20dBμ(Entrée ANT)	—	FM CHERCHER:ON 98.1MHz	VR8 (X14)	ARRET	
5	VCO	(A) 98.1MHz 1kHz,±75kHz dév 60dBμ(Entrée ANT)	Reccorder un compteur de frequence les TP2-1.	FM 98.1MHz Reccorder un 180KΩ entre les TP2-2 et GND.	VR6 (X14)	19,000Hz	(c)
SECTION MA							
(1)	NIVEAU D'ARRET	(D) 990kHz 400Hz, 30% mod 35dBμ(Entrée ANT)	—	AM 990kHz	VR4 (X14)	ARRET	
SECTION DU MAGNETPHONE							
[1]	AZIMUTH	MTT-114 10kHz	(B)	Lecture bande	Vis d'azimut de tête	Ajuster l'azimut pour que chaque L-CH/R-CH ou FWD/RVS devienne maximum.	(e)

KRC-310(F)

ABGLEICH

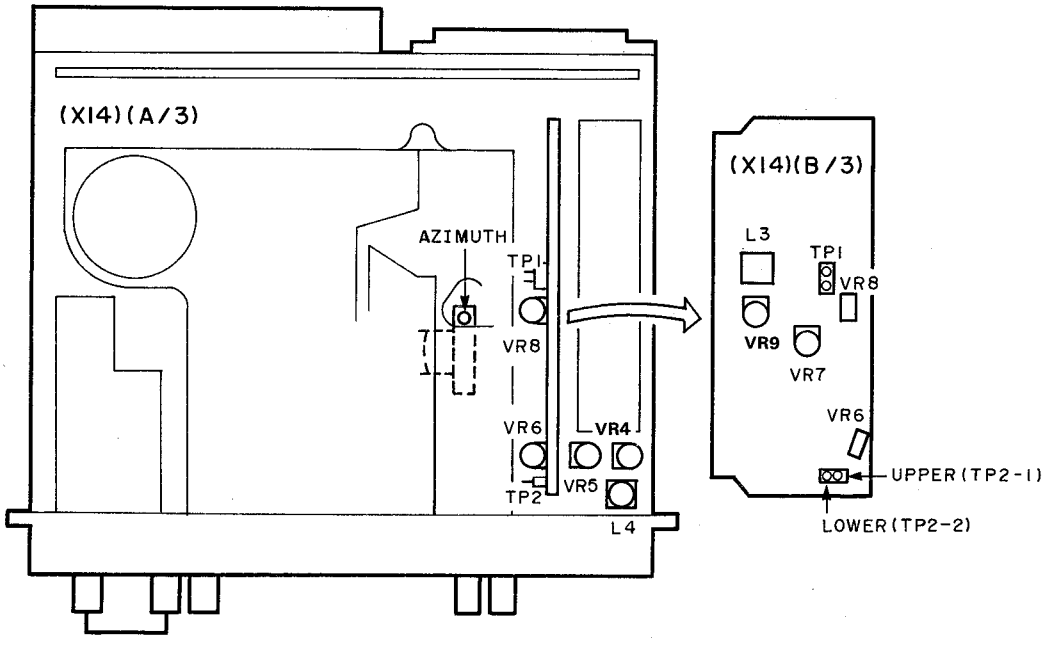
Die Regler und Knöpfe wire folgt einstellen.
BALANCE :Mittelage
FADER :Mittelage
BASS :Mittelage
TREBLE :Mittelage

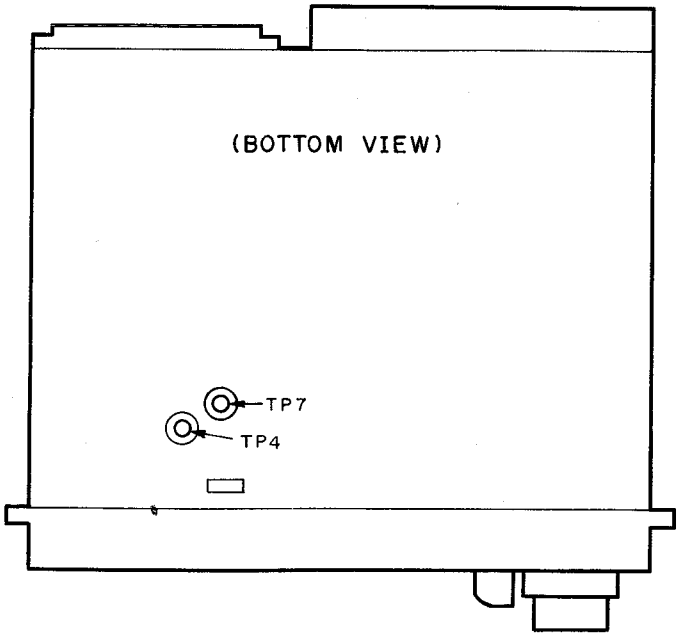
NR.	GEGENSTAND	EINGANGS-EINSTELLUNG	AUSGANGS-EINSTELLUNG	TUNER(RECEIVER)-EINSTELLUNG	ABGLEICH PUNKTE	ABGLEICHEN FUR	ABB.
UKW-ABTEILUNG							
1	DISKRIMINATOR	(A) 98.1MHz 0 Hub 60dBμ(ANT-Eingang)	Den Gleichstrom-Voltmeter zwischen den beiden Stiften von TP1 anschließen.(X14)	FM 98.1MHz	L3 (X14)	0V	(a)
2	STEREO KANAL TRENNUNG	(C) 98.1MHz 1kHz,±67.5kHz Hub Pilot:±7.5kHz Hub Wahler:L or R 60dBμ(ANT-Eingang)	(B)	FM 98.1MHz	VR7 (X14)	So einstellen, daß das Übersprechen von L auf R und von R auf L minimal wird.	
3	ANRC	(C) 98.1MHz 1kHz,±67.5kHz Hub Pilot:±7.5kHz Hub Wahler:L or R 35dBμ(ANT-Eingang)	(B)	FM 98.1MHz Einen kabel zwischen klemmen TP5 und GND anschlißen	VR9 (X14)	Trennung 10dB	(b)
4	SUCHEN HALT PEGEL	(A) 98.1MHz 1kHz,±75kHz Hub 20dBμ(ANT-Eingang)	—	FM SUCHEN:ON 98.1MHz	VR8 (X14)	HALT	
5	VCO	(A) 98.1MHz 1kHz,±75kHz Hub 60dBμ(ANT-Eingang)	Einen frequenz messer zu TP2-1 anshließen.	FM 98.1MHz Einen 180KΩ zwischen klemmen TP2-2 und GND anshließen	VR6 (X14)	19,000Hz	(c)
MW-ABTEILUNG							
(1)	HALT PEGEL	(D) 990kHz 400Hz, 30% mod 35dBμ(ANT-Eingang)	—	MW 990kHz	VR4 (X14)	HALT	
CASSETTEN-DECK-ABTEILUNG							
[1]	AZIMUTH	MTT-114 10kHz	(B)	Bandwiedergabe	Kopfazimutschraube	So einstellen, daß das Azimuth für jeweils L-CH/R-CH oder FWD/RVS maximal wird.	(e)

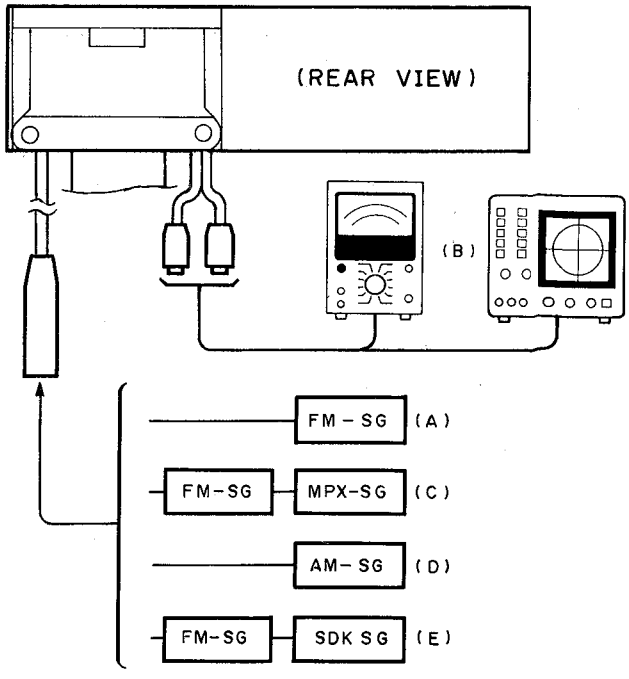
KRC-310(G)

KRC-310

ADJUSTMENT/REGLAGE/ABGLEICH

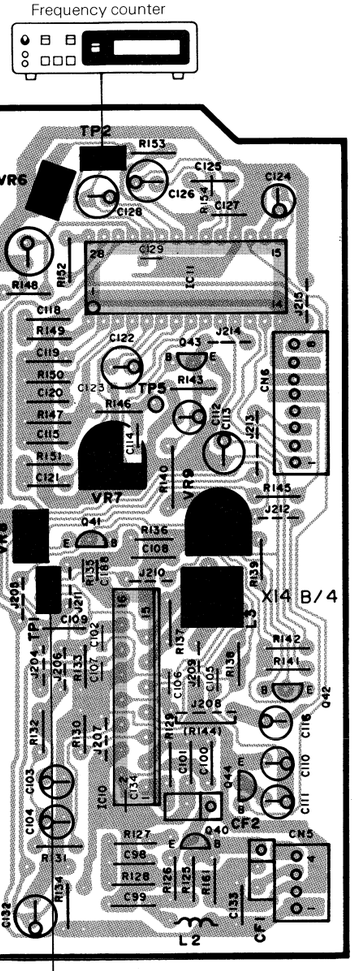


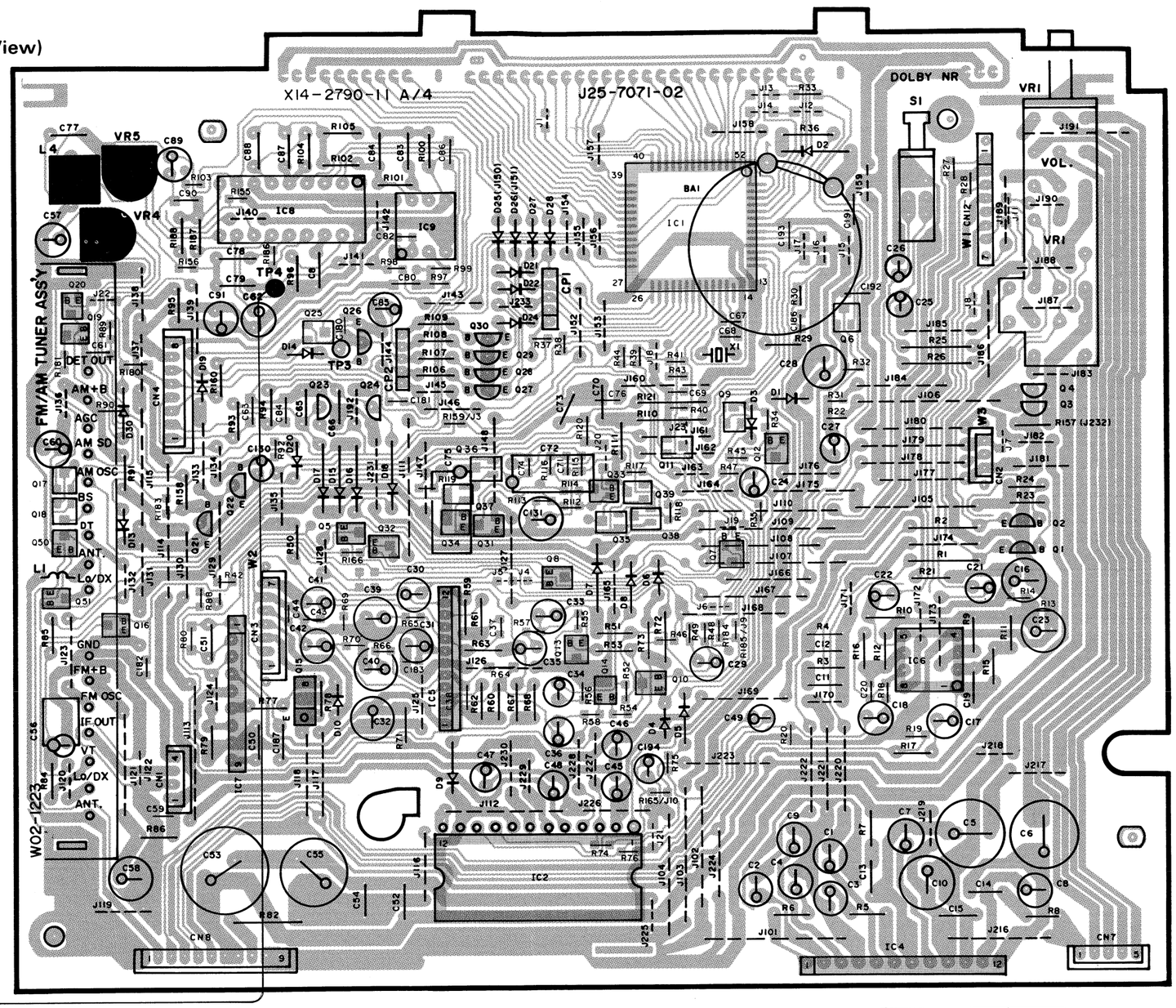




PC BOARD (Component Side View)

(c) VCO: 19,000 Hz
Frequency counter



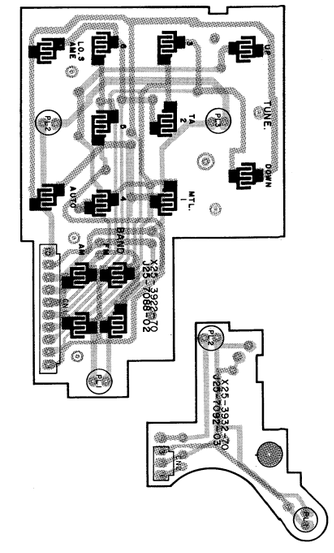


DC Voltmeter

(a) DISCRIMINATOR: 0V

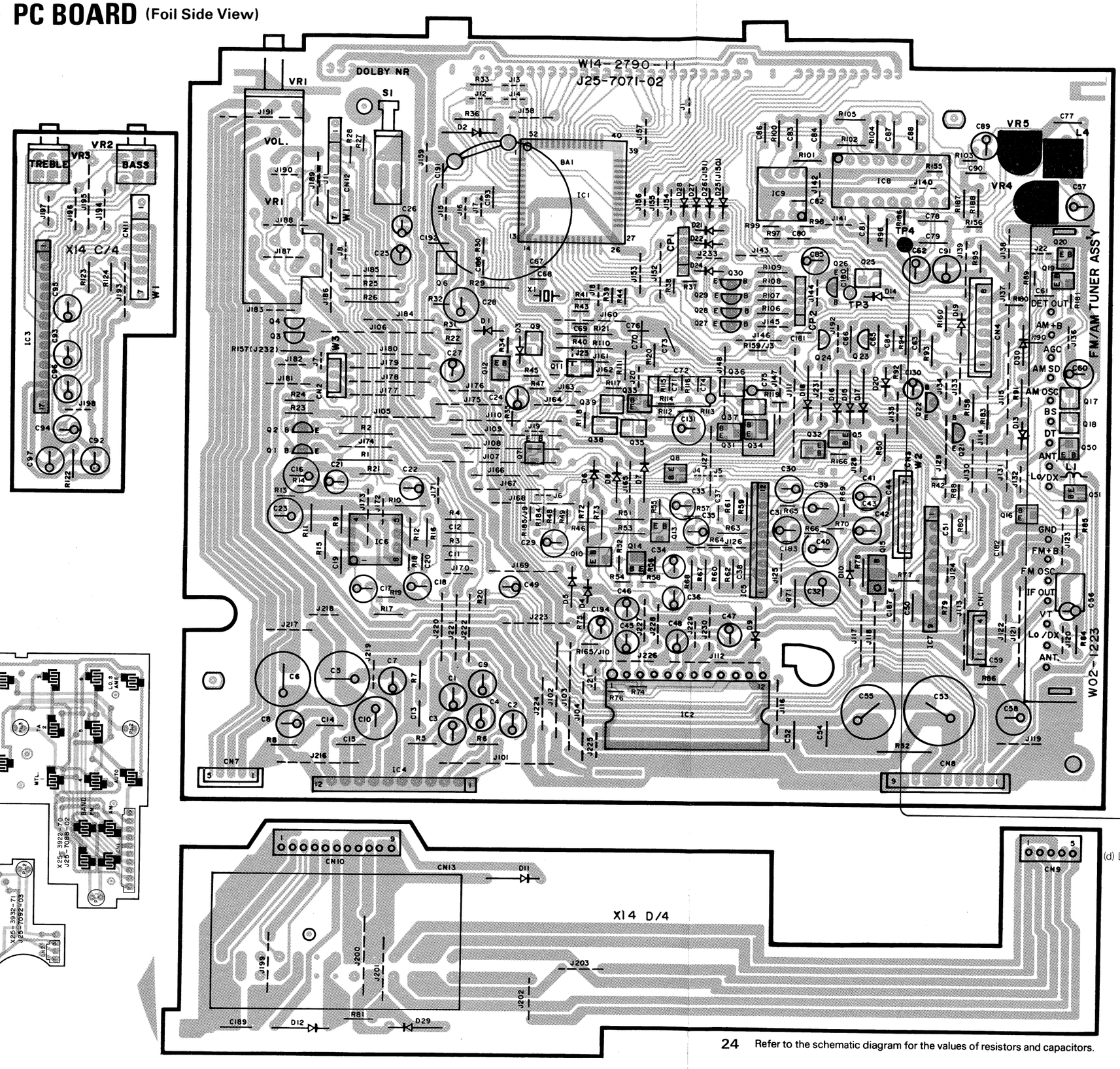
AC Voltmeter

(d) DK LEVEL: Maximum



Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Foil Side View)



(c) VCO: 19,000 Hz
Frequency counter

DC Voltmeter

(a) DISCRIMINATOR: 0V

AC Voltmeter

(d) DK LEVEL: Maximum

24 Refer to the schematic diagram for the values of resistors and capacitors.

(X14)(B/4)

(X14-2790-12)(A/4)

(W02-1223-05)

(D40-0855-05)

DTC124ES
2SC1740S

DTA124EK
DTA144EK
DTC124EK
2SA1037K
2SC2412K

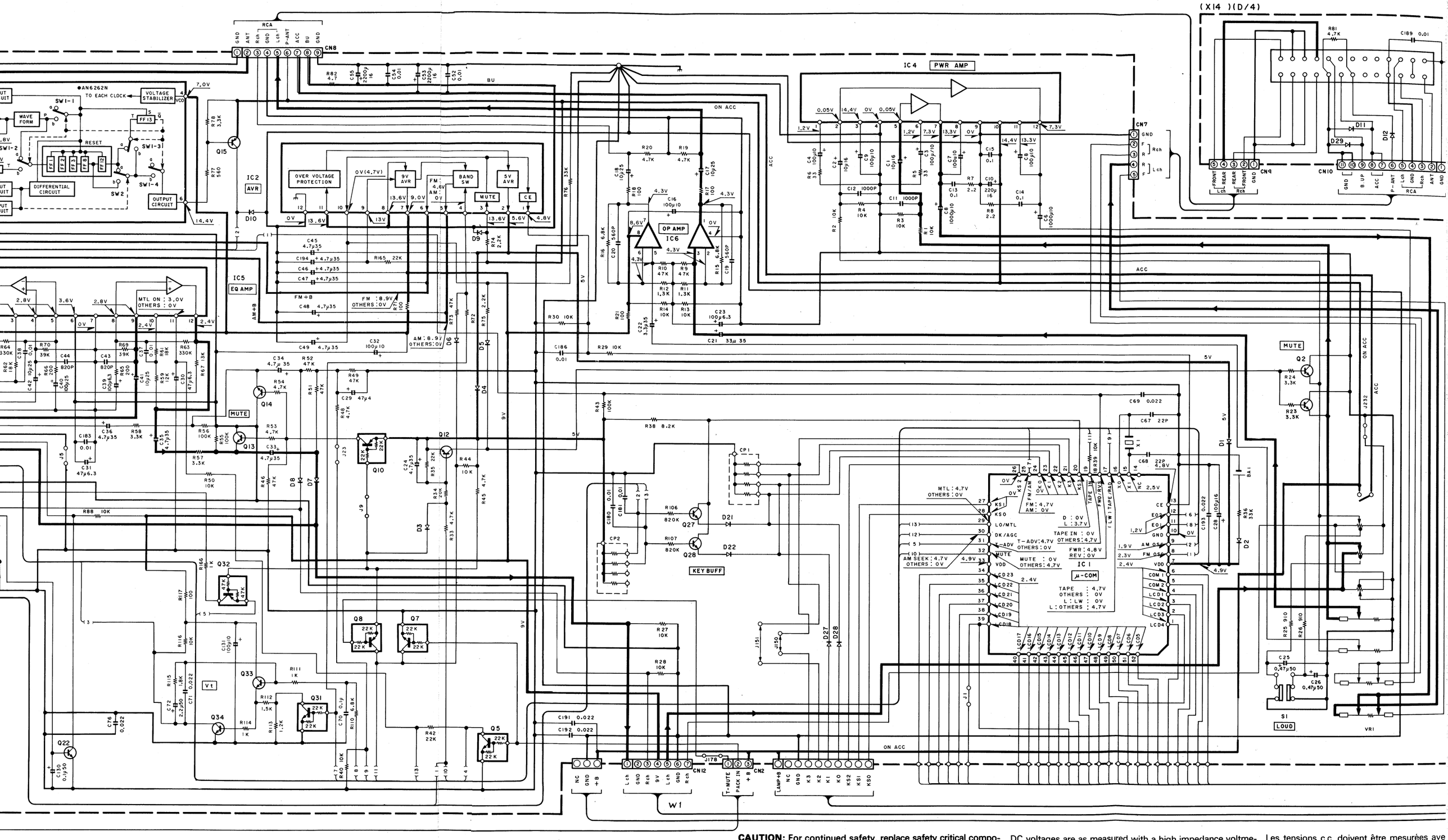
2SB1307M

AN6262N

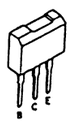
LA1140-K

NJM4565D

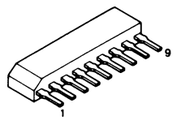
AN7178



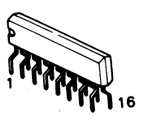
2SB1307M



AN6262N

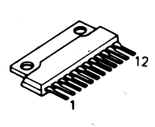


LA1140-K

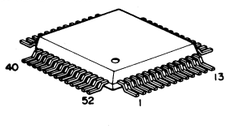


NJM4565D

AN7178



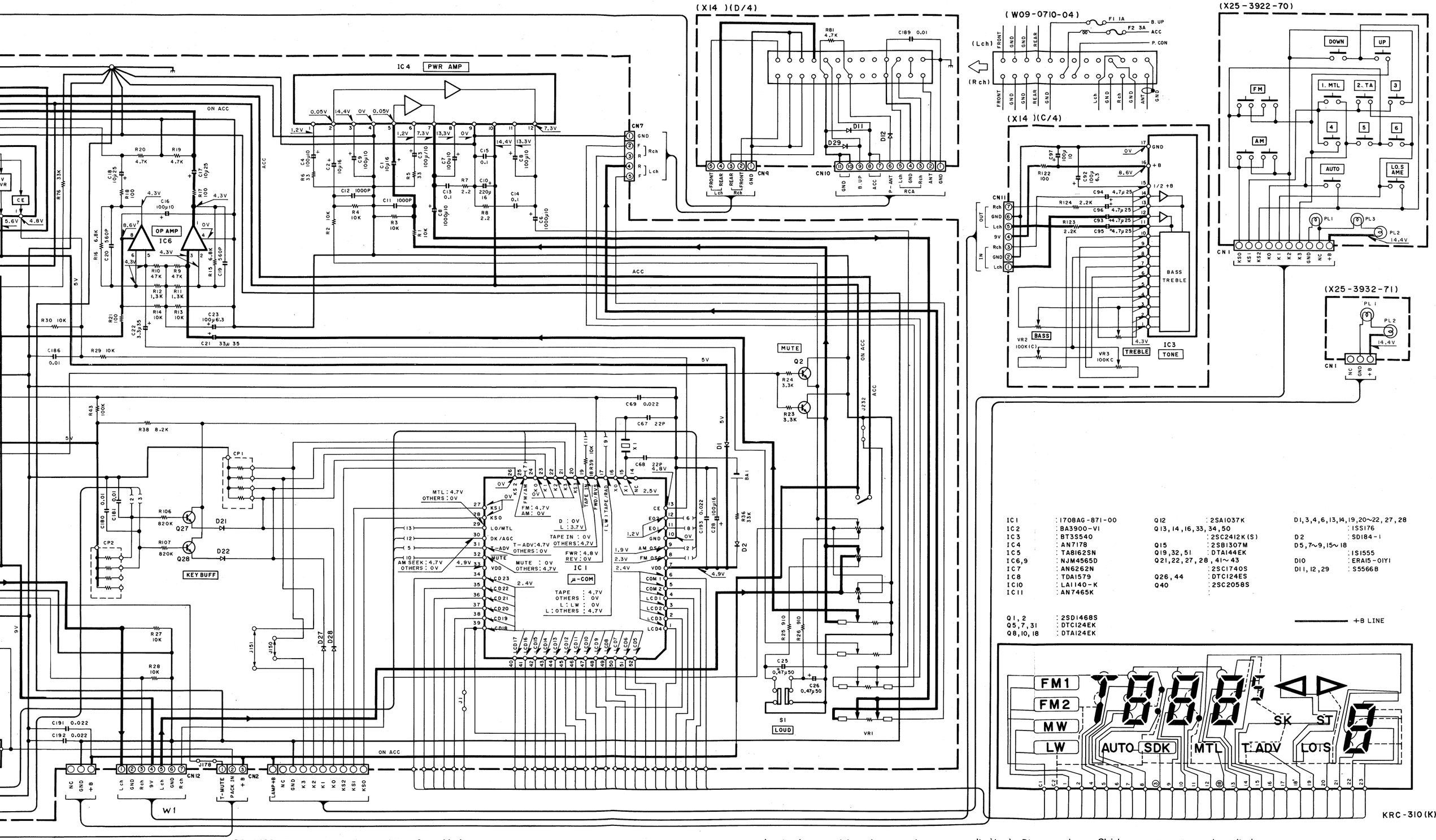
1708AG-871-00



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

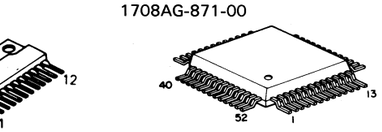
Les tensions c.c. doivent être mesurées ave haute impédance. Les valeurs peuvent différ fait des variations inhérentes aux appareils et de mesure individuels.



IC1	: 1708AG-871-00	Q12	: 2SA1037K	D1,3,4,6,13,14,19,20~22,27,28	: 1SS176
IC2	: BA3900-V1	Q13,14,16,33,34,50	: 2SC2412K(S1)	D2	: SD184-1
IC3	: BT3S540	Q15	: 2SB1307M	D5,7~9,15~18	: 1S1555
IC4	: AN7178	Q19,32,51	: DTA144EK	D10	: ERA15-01Y1
IC5	: TA8162SN	Q21,22,27,28,41~43	: 2SC1740S	D11,12,29	: S5566B
IC6,9	: NJM4565D	Q26,44	: DTC124ES		
IC7	: AN6262N	Q40	: 2SC2058S		
IC8	: TDA1579				
IC10	: LA1140-K				
IC11	: AN7465K				
Q1,2	: 2SD1468S				
Q5,7,31	: DTC124EK				
Q8,10,18	: DTA124EK				

——— +B LINE

1708AG-871-00



CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ Indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

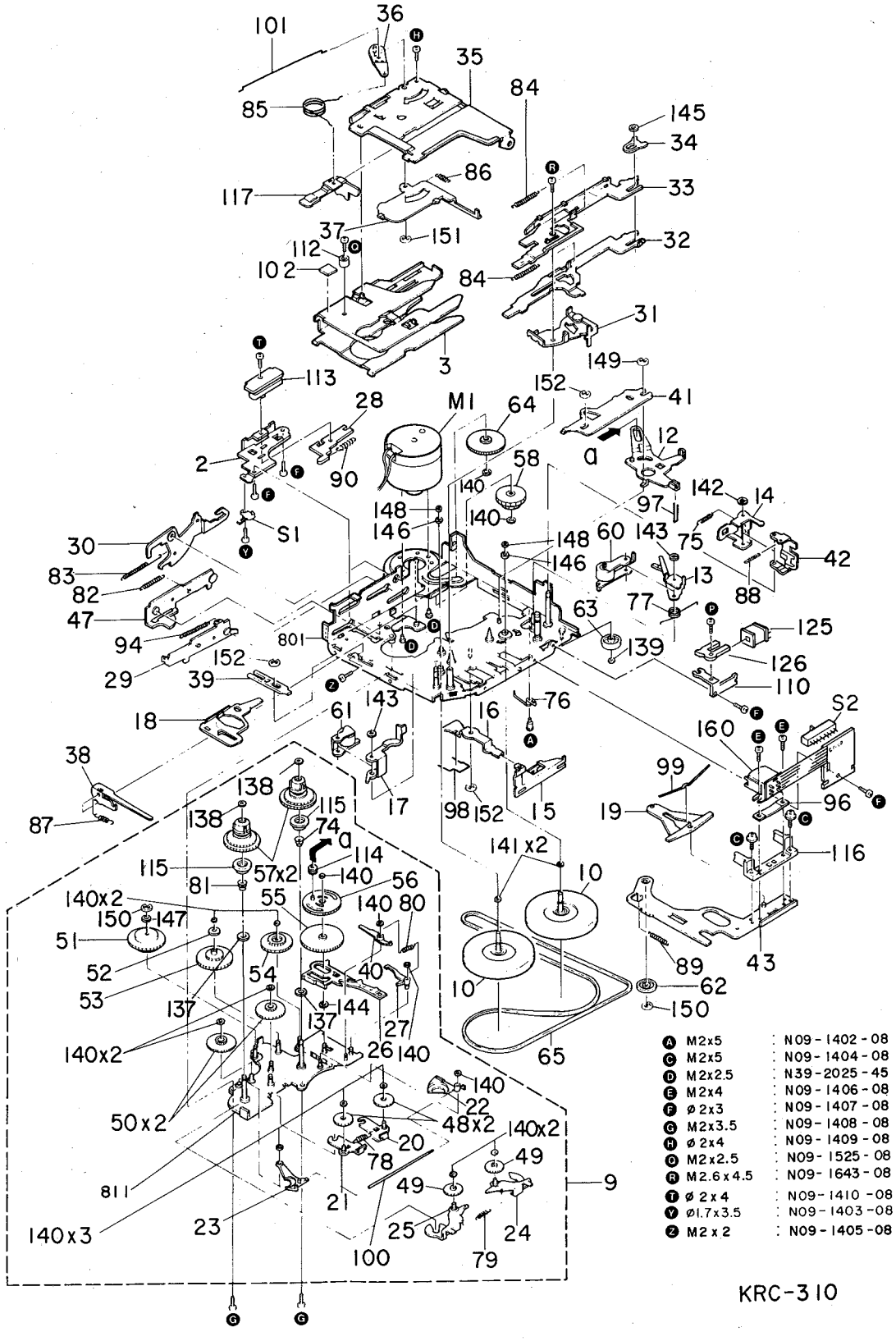
KRC-310(K)

KRC-310

KENWOOD

Y36-1210-11

EXPLODED VIEW (MECHANISM)



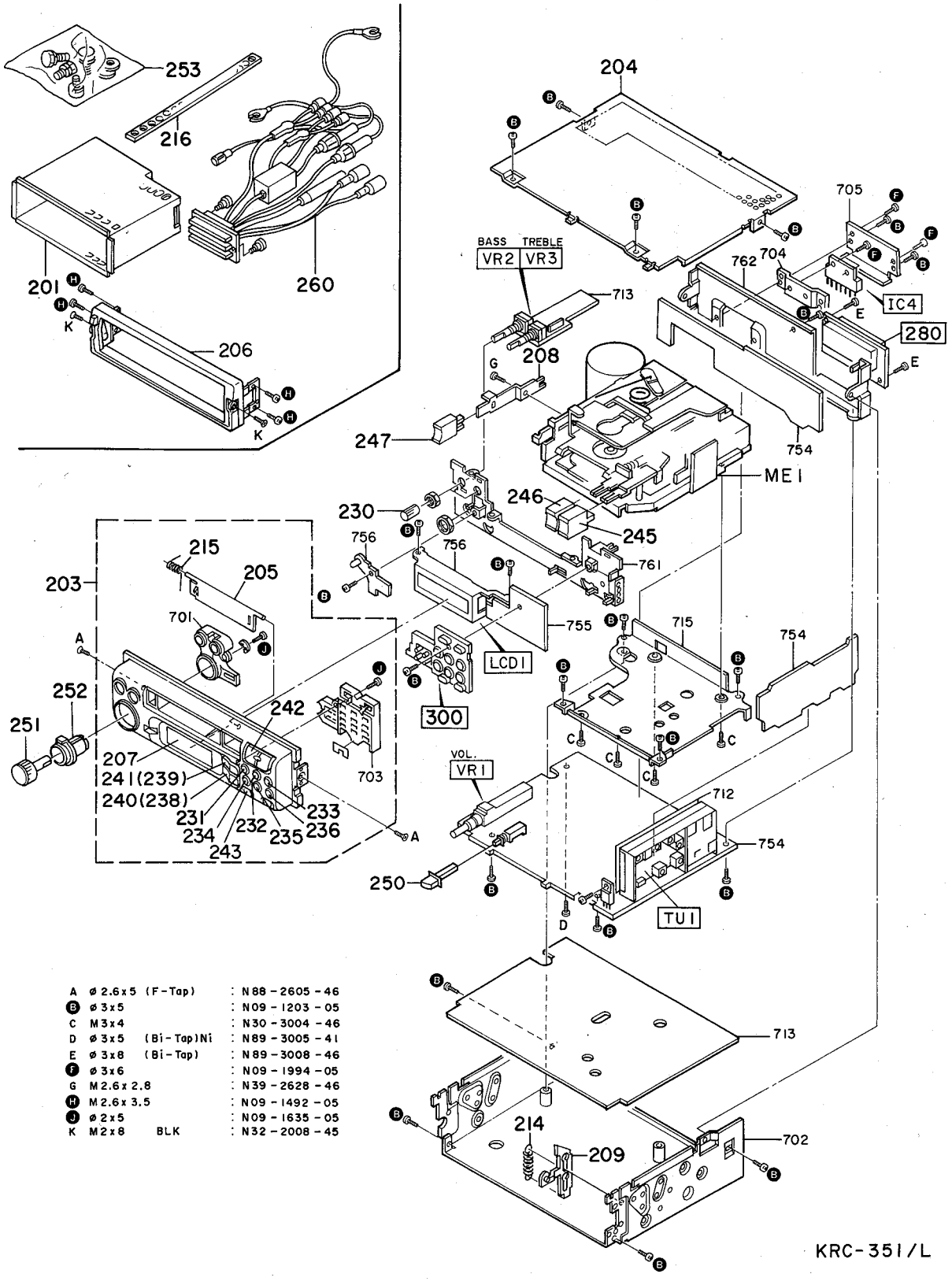
A	M2x5	: N09-1402-08
C	M2x5	: N09-1404-08
D	M2x2.5	: N39-2025-45
E	M2x4	: N09-1406-08
F	ø2x3	: N09-1407-08
G	M2x3.5	: N09-1408-08
H	ø2x4	: N09-1409-08
O	M2x2.5	: N09-1525-08
R	M2.6x4.5	: N09-1643-08
T	ø2x4	: N09-1410-08
Y	ø1.7x3.5	: N09-1403-08
Z	M2x2	: N09-1405-08

KRC-310

Parts with the exploded numbers larger than 700 are not supplied.

KRC-310

EXPLODED VIEW (UNIT)



A	ø2.6x5	(F-Tap)	: N88-2605-46
B	ø3x5		: N09-1203-05
C	M3x4		: N30-3004-46
D	ø3x5	(Bi-Tap)Ni	: N89-3005-41
E	ø3x8	(Bi-Tap)	: N89-3008-46
F	ø3x6		: N09-1994-05
G	M2.6x2.8		: N39-2628-46
H	M2.6x3.5		: N09-1492-05
J	ø2x5		: N09-1635-05
K	M2x8	BLK	: N32-2008-45

Parts with the exploded numbers larger than 700 are not supplied.

PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
			KRC-310			
201	1C	*	A01-2508-01	METALLIC CABINET		
203	2C	*	A20-7542-03	PANEL ASSY		
204	1D	*	A52-0609-02	TOP COVER		
205	2C	*	A53-1511-03	CASSETTE LID		
206	1C	*	B07-2014-02	ESCUTCHEON ASSY		
207	2C	*	B10-1335-03	FRONT GLASS		
-		*	B44-6006-04	UPC CODE LABEL		
-		*	B44-6008-04	UPC CODE LABEL		
-		*	B46-0100-20	WARRANTY CARD		
-			B46-0172-03	QUESTIONAIRE CARD		
-		*	B50-7937-00	INSTRUCTION MANUAL		
-			B58-0883-04	CAUTION CARD (74X35,ｺﾝﾃﾅ)		
-			B58-0889-04	CAUTION CARD (105X74,ｲｼﾝｴｸﾄ)		
208	1D	*	D10-2522-14	LEVER		
209	3D	*	D10-2549-04	LEVER		
ME1	1D		D40-0855-05	CASSETTE MECHANISM ASSY		
214	3D		G01-2040-04	EXTENSION SPRING		
215	2C		G01-2371-04	TORSION COIL SPRING		
-		*	H01-9086-04	ITEM CARTON CASE		
-		*	H03-3100-04	OUTER CARTON CASE		
-		*	H10-4322-03	POLYSTYRENE FOAMED FIXTURE		
-			H25-0329-04	PROTECTION BAG (280X450X0.03)		
-			H25-0334-04	PROTECTION BAG (125X250X0.03)		
-			H25-0336-04	PROTECTION BAG (170X250X0.03)		
216	1C		J54-0059-04	STAY		
230	2C	*	K23-1003-04	KNOB (TONE)		
231	2C	*	K24-0563-04	KNOB (P1)		
232	2C	*	K24-0564-04	KNOB (P2)		
233	2C	*	K24-0565-04	KNOB (P3)		
234	2C	*	K24-0566-04	KNOB (P4)		
235	2C	*	K24-0567-04	KNOB (P5)		
236	2C	*	K24-0568-04	KNOB (P6)		
240	2C	*	K24-0572-03	KNOB (AM)		
241	2C	*	K24-0573-03	KNOB (FM)		
242	2C	*	K24-0574-03	KNOB (TUNING)		
243	2C	*	K24-0575-04	KNOB		
245	2D	*	K27-3507-04	KNOB (BUTTON) (FF)		
246	2D	*	K27-3508-04	KNOB (BUTTON) (REW)		
247	1C	*	K27-3509-04	KNOB (BUTTON) (EJECT)		
250	2C	*	K29-5537-04	KNOB (LOUD)		
251	2C	*	K29-5538-03	KNOB (VOL)		
252	2C	*	K29-5539-03	KNOB (FADER)		
253	1C		N99-0280-05	SCREW SET		
A	2C		N88-2605-46	FLAT HEAD TAPTITE SCREW		
B	1D,2D		N09-1203-05	SCREW		
C	2D		N30-3004-46	PAN HEAD MACHINE SCREW		
D	2D	*	N89-3005-41	BINDING HEAD TAPTITE SCREW		
E	1D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
F	1D		N09-1994-05	SCREW		
G	1D		N39-2628-46	PAN HEAD MACHINE SCREW		

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H	2D		N09-1492-05	SCREW		
J	2C		N09-1635-05	SCREW		
K	1C		N32-2008-45	FLAT HEAD MACHINE SCREW		
260	1C	*	W09-0710-04	DETACHBLE CONNECTOR		
BA1		*	W09-0719-05	BATTERY		
SYNTHESIZER UNIT (X14-2790-11)						
LCD1	2C	*	B38-0517-05	LIQUID CRYSTAL		
C1 ,2			CE04DW1C100M	ELECTRO 10UF 16WV		
C3 ,4			CE04DW1A101M	ELECTRO 100UF 10WV		
C5 ,6			CE04DW1A102M	ELECTRO 1000UF 10WV		
C7 -9			CE04DW1A101M	ELECTRO 100UF 10WV		
C10			CE04DW1C221M	ELECTRO 220UF 16WV		
C11 ,12			C91-0757-05	CERAMIC 1000PF K		
C13 ,14			CF92FV1H104J	MF 0.10UF J		
C15			C91-0769-05	CERAMIC 0.01UF M		
C16			CE04CW1A101M	ELECTRO 100UF 10WV		
C17 ,18			CE04CW1E100M	ELECTRO 10UF 25WV		
C19			C91-0754-05	CERAMIC 560PF K		
C20			CK73FB1H561K	CHIP C 560PF K		
C21 ,22			CE04CW1H3R3M	ELECTRO 3.3UF 50WV		
C23			CE04CW0J101M	ELECTRO 100UF 6.3WV		
C24			CE04CW1V4R7M	ELECTRO 4.7UF 35WV		
C25 ,26			CE04CW1HR47M	ELECTRO 0.47UF 50WV		
C28			C90-1263-05	ELECTRO 100UF 16WV		
C29			CE04CW0G470M	ELECTRO 47UF 4.0WV		
C30 ,31			CE04CW0J470M	ELECTRO 47UF 6.3WV		
C32			CE04CW1A101M	ELECTRO 100UF 10WV		
C33 -36			CE04CW1V4R7M	ELECTRO 4.7UF 35WV		
C37			CK73FB1H103K	CHIP C 0.010UF K		
C38			CK73EB1H103K	CHIP C 0.010UF K		
C39 ,40			CE04CW0J101M	ELECTRO 100UF 6.3WV		
C41 ,42			CE04CW1E100M	ELECTRO 10UF 25WV		
C43 ,44			CK73FB1H821K	CHIP C 820PF K		
C45 -49			CE04CW1V4R7M	ELECTRO 4.7UF 35WV		
C50			CF92FV1H104J	MF 0.10UF J		
C51			C91-1235-05	CERAMIC 10PF J		
C52			CK45FF1H103Z	CERAMIC 0.010UF Z		
C53			CE04DW1C222M	ELECTRO 2200UF 16WV		
C54			CK45FF1H103Z	CERAMIC 0.010UF Z		
C55			CE04DW1C102M	ELECTRO 1000UF 16WV		
C56			CE04CW1H010M	ELECTRO 1.0UF 50WV		
C58			CE04DW1A221M	ELECTRO 220UF 10WV		
C59			CK73FB1H223K	CHIP C 0.022UF K		
C60			CE04CW1A470M	ELECTRO 47UF 10WV		
C61			CK73EB1H473K	CHIP C 0.047UF K		
C63 ,64			CK73EB1H223K	CHIP C 0.022UF K		
C65 ,66			C91-0755-05	CERAMIC 680PF K		
C67 ,68			CC73FCH1H220J	CHIP C 22PF J		
C69			CK73FB1H223K	CHIP C 0.022UF K		
C70		*	C91-2005-05	ELECTRO 0.1UF 50WV		
C71			CK73FB1H223K	CHIP C 0.022UF K		
C72			CE04DW1H2R2M	ELECTRO 2.2UF 50WV		
C76			CK73FB1H223K	CHIP C 0.022UF K		

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C92			CE04DW0J101M	ELECTRO 100UF 6.3WV		
C93 -96			CE04DW1E4R7M	ELECTRO 4.7UF 25WV		
C97			CE04DW1A101M	ELECTRO 100UF 10WV		
C98 -101			C91-0769-05	CERAMIC 0.01UF M		
C102			CK73FB1H223K	CHIP C 0.022UF K		
C103,104			CE04NW1HR47M	ELECTRO 0.47UF 50WV		
C105			CK73FB1H223K	CHIP C 0.022UF K		
C106			CK73FB1H331K	CHIP C 330PF K		
C107			CK73FB1H223K	CHIP C 0.022UF K		
C108			C91-0757-05	CERAMIC 1000PF K		
C109			C91-0769-05	CERAMIC 0.01UF M		
C110			CE04NW1H010M	ELCTRO 1.0UF 50WV		
C111			CE04NW1E4R7M	ELECTRO 4.7UF 25WV		
C112			CE04NW1H2R2M	ELECTRO 2.2UF 50WV		
C113			CE04DW1HR33M	ELECTRO 0.33UF 50WV		
C114			CK73FB1H222K	CHIP C 2200PF K		
C115			C91-0664-05	CERAMIC 0.0033UF K		
C116			CE04NW1E4R7M	ELECTRO 4.7UF 25WV		
C117			CE04DW1A101M	ELECTRO 100UF 10WV		
C118,119			C91-0692-05	CERAMIC 0.047UF K		
C120			CF92FV1H104J	MF 0.10UF J		
C121			C91-0676-05	CERAMIC 0.01UF K		
C122			CE04DW1E4R7M	ELECTRO 4.7UF 25WV		
C123			CK73FB1H822K	CHIP C 8200PF K		
C124			CE04NW1HR22M	ELECTRO 0.22UF 50WV		
C125			CF92FV1H104J	MF 0.10UF J		
C126			CE04DW1HR22M	ELECTRO 0.22UF 50WV		
C127			CQ92P2A391J	MYLAR 390PF J		
C128			CE04DW1HR22M	ELECTRO 0.22UF 50WV		
C129			CK73FB1H682K	CHIP C 6800PF K		
C130			CE04CW1H0R1M	ELECTRO 0.1UF 50WV		
C131			CE04CW1A101M	ELECTRO 100UF 10WV		
C132			CE04DW1A101M	ELECTRO 100UF 10WV		
C133			C91-0769-05	CERAMIC 0.01UF M		
C134			CK73FB1H103K	CHIP C 0.010UF K		
C180-183			CK73FB1H103K	CHIP C 0.010UF K		
C186			CK73FB1H103K	CHIP C 0.010UF K		
C187			C91-0769-05	CERAMIC 0.01UF M		
C188			CK73FB1H331K	CHIP C 330PF K		
C189			C91-0769-05	CERAMIC 0.01UF M		
C191-193			CK73EB1H223K	CHIP C 0.022UF K		
C194			CE04CW1V4R7M	ELECTRO 4.7UF 35WV		
280	1D	*	E08-2601-05	RECTANGULAR RECEPTACLE		
CF1 ,2			L72-0523-05	CERAMIC FILTER		
L1 ,2			L40-4791-17	SMALL FIXED INDUCTOR(4.7UH,K)		
L3			L30-0462-15	FM IFT		
X1			L77-1163-05	CRYSTAL RESONATOR		
CP1 ,2			R90-0487-05	MULTI-COMP 47KX4 J 1/6W		
J1			R92-0670-05	CHIP R 0 OHM		
J5 ,6			R92-0670-05	CHIP R 0 OHM		
J8 ,9			R92-0670-05	CHIP R 0 OHM		
J11			R92-0679-05	CHIP R 0 OHM		
J13			R92-0679-05	CHIP R 0 OHM		

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J15 -19			R92-0679-05	CHIP R 0 ΩHM		
J21 -23			R92-0679-05	CHIP R 0 ΩHM		
R13 ,14			RK73FB2A103J	CHIP R 10K J 1/10W		
R18			RK73FB2A101J	CHIP R 100 J 1/10W		
R19 ,20			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R27 ,28			RK73FB2A103J	CHIP R 10K J 1/10W		
R30			RK73FB2A103J	CHIP R 10K J 1/10W		
R33			RK73EB2B472J	CHIP R 4.7K J 1/8W		
R34			RK73FB2A203J	CHIP R 20K J 1/10W		
R35			RK73FB2A223J	CHIP R 22K J 1/10W		
R38			RK73FB2A822J	CHIP R 8.2K J 1/10W		
R39 ,40			RK73FB2A103J	CHIP R 10K J 1/10W		
R42			RK73FB2A223J	CHIP R 22K J 1/10W		
R43			RK73FB2A104J	CHIP R 100K J 1/10W		
R44			RK73FB2A103J	CHIP R 10K J 1/10W		
R45			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R46			RK73FB2A473J	CHIP R 47K J 1/10W		
R48			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R49			RK73FB2A473J	CHIP R 47K J 1/10W		
R52			RK73FB2A473J	CHIP R 47K J 1/10W		
R54			RK73FB2A472J	CHIP R 4.7K J 1/10W		
R55 ,56			RK73FB2A104J	CHIP R 100K J 1/10W		
R57 ,58			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R64			RK73EB2B334J	CHIP R 330K J 1/8W		
R65 ,66			RK73FB2A201J	CHIP R 200 J 1/10W		
R69 ,70			RK73FB2A393J	CHIP R 39K J 1/10W		
R74 ,75			RK73FB2A222J	CHIP R 2.2K J 1/10W		
R76			RK73FB2A333J	CHIP R 33K J 1/10W		
R80		*	RK73EB2B364J	CHIP R 360K J 1/8W		
R82			RD14DB2H4R7J	SMALL-RD 4.7 J 1/2W		
R88			RK73FB2A103J	CHIP R 10K J 1/10W		
R89			RK73FB2A303J	CHIP R 30K J 1/10W		
R90			RK73EB2B333J	CHIP R 33K J 1/8W		
R92			RK73FB2A223J	CHIP R 22K J 1/10W		
R112			RK73FB2A152J	CHIP R 1.5K J 1/10W		
R113			RK73FB2A122J	CHIP R 1.2K J 1/10W		
R114			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R115			RK73FB2A182J	CHIP R 1.8K J 1/10W		
R116			RK73FB2A103J	CHIP R 10K J 1/10W		
R117			RK73FB2A101J	CHIP R 100 J 1/10W		
R135			RK73FB2A393J	CHIP R 39K J 1/10W		
R154			RK73FB2A332J	CHIP R 3.3K J 1/10W		
R165			RK73FB2A223J	CHIP R 22K J 1/10W		
R166			RK73FB2A102J	CHIP R 1.0K J 1/10W		
R180			RK73EB2B223J	CHIP R 22K J 1/8W		
R181			RK73FB2A823J	CHIP R 82K J 1/10W		
R183			RK73FB2A473J	CHIP R 47K J 1/10W		
VR1		*	R24-3631-05	POTENTIOMETER(40X2/20KX3)		
VR2 ,3		*	R10-3634-05	POTENTIOMETER(100KX2)		
VR4			R12-3096-05	TRIMMING POT.(10K フセ)		
VR6			R12-1073-05	TRIMMING POT.(4.7K タテ)		
VR7			R12-1067-05	TRIMMING POT.(2.2K フセ)		
VR8			R12-3100-05	TRIMMING POT.(10K タテ)		
VR9			R12-3097-05	TRIMMING POT.(22K フセ)		

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S1			S40-2162-05	PUSH SWITCH		
D1			1SS176	DIODE		
D2			SD184-1	DIODE		
D3 ,4			1SS176	DIODE		
D5			1S1555	DIODE		
D6			1SS176	DIODE		
D7 -9			1S1555	DIODE		
D10			ERA15-01Y1	DIODE		
D11 ,12			S5566B	DIODE		
D13 ,14			1SS176	DIODE		
D15 -18			1S1555	DIODE		
D19 -22			1SS176	DIODE		
D27 ,28			1SS176	DIODE		
D29			S5566B	DIODE		
IC1		*	1708AG-871-00	CUSTOM IC		
IC2			BA3900-V1	IC(POWER SUPPLY)		
IC3		*	BT3S540	CUSTOM IC		
IC4			AN7178	IC(5.7W X 2CH POWER IC)		
IC5		*	TA8162SN	IC		
IC6			NJM4565D	IC(OP AMP X2)		
IC7			AN6262N	IC(T.ADV)		
IC10			LA1140-K	IC(FM IF/DETECTION)		
IC11		*	AN7465K	IC		
Q1 ,2			2SD1468S	TRANSISTOR		
Q5			DTC124EK	DIGITAL TRANSISTOR		
Q7			DTC124EK	DIGITAL TRANSISTOR		
Q8			DTA124EK	DIGITAL TRANSISTOR		
Q10			DTA124EK	DIGITAL TRANSISTOR		
Q12			2SA1037K	TRANSISTOR		
Q13 ,14			2SC2412K(S)	TRANSISTOR		
Q15			2SB1307M	TRANSISTOR		
Q16			2SC2412K(S)	TRANSISTOR		
Q19			DTA144EK	DIGITAL TRANSISTOR		
Q20			DTC124EK	DIGITAL TRANSISTOR		
Q21 ,22			2SC1740S	TRANSISTOR		
Q26			DTC124ES	DIGITAL TRANSISTOR		
Q27 ,28			2SC1740S	TRANSISTOR		
Q31			DTC124EK	DIGITAL TRANSISTOR		
Q32			DTA144EK	DIGITAL TRANSISTOR		
Q33 ,34			2SC2412K(S)	TRANSISTOR		
Q40		*	2SC2058S	TRANSISTOR		
Q41 -43			2SC1740S	TRANSISTOR		
Q44			DTC124ES	DIGITAL TRANSISTOR		
Q50			2SC2412K(S)	TRANSISTOR		
Q51			DTA144EK	DIGITAL TRANSISTOR		
TU1	2D	*	W02-1223-05	TUNER ASSY		
SWITCH UNIT (X25-3922-70)						
PL1 -3			B30-1305-05	LAMP (5.5V .125A)		
300	2C	*	E29-1318-05	CONDUCTIVE RUBBER		
DISPLAY UNIT (X25-3932-71)						
PL1 ,2			B30-1279-05	LAMP (8V,.07A,アンバー)		

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CASSETTE MECHANISM ASS'Y (D40-0855-05)						
2	2A		A10-0770-08	CHASSIS		
3	1B		A53-0674-08	CASSETTE HOLDER		
C516			C90-1254-05	ELECTRO 1000UF 16WV		
9	3B		D03-0241-08	REEL DISK ASSY		
10	2B,3B		D01-0073-08	FLYWHEEL ASSY		
12	2B		D10-1319-18	SLIDER ASSY (SWITCHING)		
13	2B		D10-1321-08	LEVER (TRIGGER STOP)		
14	2B		D10-1322-08	ARM (FF/REW LOCK)		
15	2B		D10-1323-08	SLIDER (FF/REW)		
16	2B		D10-1324-08	LEVER (FF/REW OP)		
17	2A		D10-1651-08	ARM (PULL)		
18	2A		D10-1326-08	SLIDER (TAKEUP GEAR PUSH)		
19	2B		D10-1328-08	ARM (PINCH ROLLER OP)		
20	3A		D10-1329-08	SLIDER ASSY (FF GEAR)		
21	3A		D10-1330-08	SLIDER ASSY (REW GEAR)		
22	3B		D10-1331-08	ARM (END DETECT,F)		
23	3A		D10-1332-08	ARM (END DETECT,R)		
24	3B		D10-1333-08	SLIDER ASSY (TAKEUP GEAR,F)		
25	3A		D10-1334-08	SLIDER ASSY (TAKEUP GEAR,R)		
26	3A		D10-1335-28	SLIDER (END SENSOR)		
27	3A		D10-1336-18	ARM (TRIGGER)		
28	1A		D10-1337-08	LEVER (SW OP)		
29	2A		D10-1338-08	SLIDER ASSY (PUSH)		
30	2A		D10-1340-08	LEVER (LIFT UP)		
31	1B		D10-1652-08	BRACKET ASSY (FF/REW)		
32	1B		D10-1654-18	LEVER (REW)		
33	1B		D10-1653-18	LEVER (FF)		
34	1B		D10-1344-08	SLIDER (PROG CHANGE)		
35	1B		D10-1345-08	CASE LIFTER		
36	1A		D10-1346-08	SLIDER ASSY (PACK EJECT)		
37	1A		D10-1347-08	SLIDER (CASET DETECT)		
38	2A		D10-1348-08	LEVER (TIMING)		
39	2A		D10-1349-08	ARM (TAKEUP GEAR OP)		
40	3A		D10-1350-08	ARM (STOP)		
41	1B		D10-1530-08	SLIDER (MAIN)		
42	2B		D10-1531-08	ARM (FF/REW RELEASE)		
43	3B		D10-1327-08	HEAD PANEL ASSY(M)		
47	2A		D10-1339-08	SLIDER ASSY(HALF/HEAD PUSH M)		
48	3B		D13-0185-08	GEAR (FF)		
49	3A,3B		D13-0186-08	GEAR (TAKEUP)		
50	3A		D13-0187-18	GEAR (FF TAKEUP)		
51	3A		D13-0188-08	CLUTCH ASSY (FF/REW)		
52	3A		D13-0189-18	GEAR (DEVICE,UPPER)		
53	3A		D13-0190-18	GEAR (DEVICE,BOTTOM)		
54	3A		D13-0191-08	GEAR (DEVICE TRIGGER/STOP)		
55	2A		D13-0192-08	GEAR (TRIGGER/STOP,OP)		
56	2A	*	D13-0193-18	GEAR (INVERTER)		
57	2A		D13-0194-08	REEL DISC ASSY (TAKEUP)		
58	2B		D13-0759-08	GEAR (MAIN)		
60	2B		D14-0114-08	PINCH ROLLER ASSY(F)		
61	2A		D14-0115-08	PINCH ROLLER ASSY(R)		
62	3B		D14-0116-08	IDLER		

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63	2B		D15-0244-18	PULLEY (INTER MEDIATE)		
64	1B		D13-0619-08	GEAR		
65	3B		D16-0109-18	BELT (MAIN)		
74	2A		G01-2180-08	COMPRESSION SP(END DETECT FOW)		
75	2B		G01-1560-08	TENSION SP (FF/REW LOCK)		
76	2B		G01-1561-08	TORSION SP (CONTROL)		
77	2B		G01-1562-08	TORSION SP (TRGR/STOP OP)		
78	3A		G01-1564-18	TENSION SP(FF/REW GEAR SLIDER)		
79	3B		G01-1565-08	TENSION SP(TAKEUP GEAR SLIDER)		
80	2A		G01-1566-08	TENSION SP (TRIGGER/STOP)		
81	2A		G01-1567-08	COMPRESSION SP(END DETECT REV)		
82	2A		G01-1570-08	TENSION SP (HALF/HEAD PNL)		
83	2A		G01-1571-08	TENSION SP (LIFTUP LEVER)		
84	1B		G01-1572-08	TENSION SP (FF/REW LEVER)		
85	1A		G01-1573-08	TORSION SP (INVERTER)		
86	1B		G01-1574-08	TENSION SP (CASET DETECT)		
87	2A		G01-1575-08	TENSION SP (TIMING LEVER)		
88	2B		G01-1734-08	TENSION SP (FF RELEASE ARM)		
89	3B		G01-1563-08	TENSION SP (HEAD PANEL)		
90	2A		G01-1568-08	TENSION SP (POWER SWITCH)		
94	2A		G01-1569-08	TENSION SP (PUSH LEVER)		
96	2B		G02-0174-08	FLAT SP (PLAYBACK HEAD)		
97	2B		G09-0047-08	FORMED WIRE SP (HEAD SW)		
98	2B		G09-0048-08	FORMED WIRE SP (FF/REW OP)		
99	2B		G09-0049-08	FORMED WIRE SP (PINCH ROLLER)		
100	3A		G09-0050-08	ROD (END SENSOR PUSH)		
101	1A		G09-0051-08	FORMED WIRE SP (PACK EJECT)		
102	1A		G13-0167-08	CUSION		
110	2B		J19-2560-08	BRACKET (PLUNGER)		
112	1A		J32-0306-08	BOSS		
113	1A		J25-4473-08	P. WIRING BOARD ASSY (PACK IN)		
114	2A		J31-0242-08	COLLAR (INVERTER GEAR)		
115	2A		J31-0243-18	COLLAR (END DETECT)		
116	2B		J90-0149-08	GUIDE (TAPE)		
117	1A		J90-0150-18	SLIDER (PACK)		
125	2B		L90-0001-08	COIL ASSY (T)		
126	2B		L92-0015-08	COIL		
137	3A		N19-1109-08	FLAT WASHER (3.6X5X0.13)		
138	2A		N19-1020-08	FLAT WASHER (1.6X3.4X0.3)		
139	2B		N19-1015-08	FLAT WASHER (0.85X2.8X0.25)		
140	2A, 3A		N19-0894-08	FLAT WASHER (1.2X3X0.25)		
141	2B		N19-0895-08	FLAT WASHER (FLYWHEEL)		
142	2B		N19-0896-08	FLAT WASHER (1.6X3.8X0.3)		
143	2A, 2B		N19-0897-08	FLAT WASHER(PINCH ROLLER ASSY)		
144	3A		N19-0898-08	FLAT WASHER (3.1X4.8X0.1)		
145	1B		N19-0899-08	FLAT WASHER (3.0X6.0X0.5)		
146	2A, 2B		N19-0901-18	FLAT WASHER (2.0X3.5X0.2)		
147	2A	*	N19-2001-08	FLAT WASHER (1.55X3X0.13)		
148	2A, 2B	*	N19-0942-18	FLAT WASHER(/1.55X/3.5X0.5)		
149	1B		N29-0082-08	E TYPE RETAINING RING(/1.5)		
150	2A, 3B		N24-3012-46	E TYPE RETAINING RING(/1.2)		
151	1B		N24-3015-46	E TYPE RETAINING RING(/1.5)		
152	1B, 2B		N24-3020-46	E TYPE RETAINING RING(/2)		

E: Scandinavia & Europe K: USA P: Canada
U: PX(Far East, Hawaii) T: England M: Other Areas
UE: AAFES(Europe) X: Australia

⚠ indicates safety critical components.

PARTS LIST

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
A	2B		N09-1402-08	SCREW (COLLER)		
C	2B		N09-1404-08	SCREW (M2X5)		
D	2A, 2B	*	N39-2025-45	SCREW (M2X2.5)		
E	2B		N09-1406-08	SCREW (M2X4)		
F	2A, 2B		N09-1407-08	SCREW (/2X3)		
G	3A		N09-1408-08	SCREW (M2X3.5)		
H	1A		N09-1409-08	SCREW (/2X4)		
P	2B		N09-1294-05	TAPTITE SCREW (/2X6)		
Q	1A		N09-1525-08	PAN HEAD MACHINE SCREW(/2X2.5)		
R	1B		N09-1643-08	SCREW (M2.6X4.5)		
T	1A		N09-1410-08	SCREW (2X4)		
Y	2A		N09-1403-08	SCREW (M1.7X3.5)		
Z	2A		N09-1405-08	SCREW (2X2.0)		
S1	2A		S46-1081-05	LEAF SWITCH (MUTING)		
S2	2B		S31-3006-08	SLIDE SWITCH		
160	2B		T31-0201-08	PLAYBACK HEAD		
M1	1B		T42-0701-08	MOTOR ASSY		

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KRC-310

SPECIFICATIONS

Specifications subject to change without notice.

FM Tuner Section

Frequency Range (200 kHz space)	87.9 MHz~107.9 MHz
(50 kHz space)	87.5 MHz~108.0 MHz
Usable Sensitivity	12.0 dBf (1.1 μV/75 ohms)
50 dB Quieting Sensitivity	15.2 dBf (1.6 μV/75 ohms)
Frequency Response (±3 dB)	30 Hz~15 kHz
Signal to Noise Ratio	73 dB
Selectivity	100 dB
Capture Ratio	1.5 dB
Image Response Ratio	70 dB
IF Response Ratio	120 dB
Stereo Separation (1 kHz)	40 dB

AM Tuner Section

Frequency Range (10 kHz space)	530 kHz~1,700 kHz
(9 kHz space)	531 kHz~1,611 kHz
Usable Sensitivity	28 dB (30 μV)

Cassette Deck Section

Tape Speed	4.76 cm/sec
Wow & Flutter	0.12% (WRMS)
Fast Winding Time (C-60)	100 sec
Frequency Response (120 μs)	30 Hz~14 kHz (±3 dB)
(70 μs)	30 Hz~16 kHz (±3 dB)
Stereo Separation (1 kHz)	43 dB
Signal to Noise Ratio (NR OFF)	54 dB

Audio Section

Max. Output Power	8 W×2
Power Output	6 W×2 into 4 ohms, 1 kHz at 10% THD 4 W×2 into 4 ohms, 30 Hz~20 kHz at 1% THD
Tone Action	Bass: 100 Hz ±10 dB Treble: 10 kHz ±10 dB
Preout level/load	1 V/10 k ohms

General

Operating Voltage	14.4 V (11~16 V allowable)
Current Consumption	2.7 A at Rated Power
Installation Size	182×52×159 mm (7-1/6×2×6-1/4 in.)
Weight	1.8 kg (4.0 lb)

Kenwood follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

Kenwood poursuit une politique de progrès constants en ce qui concerne le développement.
Pour cette raison, les spécifications sont sujettes à modifications sans préavis.

Kenwood strebt ständige Verbesserungen in der Entwicklung an.
Daher bleiben Änderungen der technischen Daten jederzeit vorbehalten.

KENWOOD CORPORATION
Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD U.S.A. CORPORATION
2201 East Dominguez Street, Long Beach, CA 90810;
550 Clark Drive, Mount Olive, NJ 07828, U.S.A.

KENWOOD ELECTRONICS CANADA INC.
P.O. BOX 1075, 959 Gana Court, Mississauga, Ontario, Canada L4T 4C2

TRIO-KENWOOD U.K. LIMITED
KENWOOD House, Dwight Road, Watford, Herts., WD1 8EB United Kingdom

KENWOOD ELECTRONICS BENELUX N.V.
Mechelsesteenweg 418 B-1930 Zaventem, Belgium

KENWOOD ELECTRONICS DEUTSCHLAND GMBH
Rembrücker-Str. 15, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.
13 Boulevard Ney, 75018 Paris, France

KENWOOD LINEAR S.p.A.
20125, MILANO-VIA ARBE, 50, ITALY

KENWOOD ELECTRONICS AUSTRALIA PTY. LTD. (INCORPORATED IN N.S.W.)
4E Woodcock Place, Lane Cove, N.S.W. 2066, Australia

KENWOOD & LEE ELECTRONICS, LTD.
Wang Kee Building, 4th Floor, 34-37, Connaught Road, Central, Hong Kong